

# **EXHIBIT A**

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

THE STATE OF TEXAS, et  
al.,

Plaintiffs,

vs.

Case No. 12-CV-03394 (DLC)

PENGUIN GROUP (USA), INC.,  
et al.,

Defendants.

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This Document Relates to: Case No. 11-MD-02293 (DLC)

IN RE ELECTRONIC BOOKS  
ANTITRUST LITIGATION.

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VIDEOTAPED DEPOSITION OF

ROGER G. NOLL, Ph.D.

November 1, 2013

Palo Alto, California

8:34 a.m.

By Reported:  
WENDY E. ARLEN, CSR #4355, RMR, CRR  
Job No: 32239

			18				20
08:49:23	1	Q. And then if you could flip to page 5 of		08:51:29	1	A. Correct.	
08:49:26	2	<b>Exhibit 1, the second paragraph under the heading</b>		08:51:30	2	<b>Q. And you read that carefully, I assume?</b>	
08:49:29	3	<b>Summary and Conclusions.</b>		08:51:33	3	A. Yes, several times.	
08:49:31	4	A. Yes.		08:51:34	4	<b>Q. Several times. Is that the basis for your understanding that the existence of anticompetitive conduct through price fixing has been established in this case?</b>	
08:49:32	5	<b>Q. In that paragraph you talk about the -- the tasks that you identified after reading the judge's opinion. Do you see that?</b>		08:51:39	5		
08:49:36	6			08:51:42	6		
08:49:40	7			08:51:44	7		
08:49:41	8	A. Yes.		08:51:45	8	A. Yes, as I explained elsewhere, I'm relying on	
08:49:41	9	<b>Q. And does that set forth tasks you pursued in -- in preparing your report?</b>		08:51:48	9	that completely for the foundation for the analysis	
08:49:47	10			08:51:52	10	that I'm doing.	
08:49:48	11	A. Yes.		08:51:53	11	<b>Q. As you understand it, are all of the material elements of the but-for world in this case established in the Court's opinion?</b>	
08:49:49	12	<b>Q. Okay. Were there any other tasks that you undertook that you can remember?</b>		08:51:57	12		
08:49:51	13			08:52:00	13		
08:49:53	14	A. I believe that all -- all the contents of my		08:52:02	14	MR. FRIEDMAN: Objection, form.	
08:49:56	15	reports are summarized there, yes.		08:52:03	15	<b>THE WITNESS:</b> I believe so, but, I mean, I'm	
08:49:58	16	<b>Q. Okay. Professor, are you familiar with the term but-for world?</b>		08:52:09	16	open to reason. But I believe, yes, they're...	
08:50:01	17			08:52:14	17	<b>Q. MR. SWANSON: What, in your view, are those material elements of the but-for world?</b>	
08:50:03	18	A. Yes.		08:52:16	18		
08:50:03	19	<b>Q. And you've used that term before?</b>		08:52:18	19	MR. FRIEDMAN: Objection, form.	
08:50:06	20	A. Yes, to the minimum possible extent.		08:52:20	20	<b>THE WITNESS:</b> I don't fully understand what	
08:50:09	21	<b>Q. I note a certain reticence to use it in this document. Is there a reason for that?</b>		08:52:21	21	you mean. What do you mean by material elements?	
08:50:15	22			08:52:24	22	What are you after?	
08:50:16	23	A. I just don't like the term.		08:52:25	23	<b>Q. MR. SWANSON: Well, I guess my question</b>	
08:50:18	24	<b>Q. It's an ugly term.</b>		08:52:28	24	<b>was -- first question was was it your understanding</b>	
08:50:21	25	A. It's an ugly term. I think it's less clear		08:52:31	25	<b>that the judge's opinion establishes the material</b>	
			19				21
08:50:24	1	than using the term competitive benchmark.		08:52:34	1	<b>elements. You said yes. So my question is what -- what are the material elements that you think are established.</b>	
08:50:27	2	<b>Q. I note in your report you speak of defining</b>		08:52:41	2		
08:50:30	3	<b>anticompetitive harm as the departure of market</b>		08:52:45	3		
08:50:33	4	<b>outcomes from the outcomes that would have occurred</b>		08:52:46	4	MR. FRIEDMAN: Objection, form.	
08:50:36	5	<b>in the absence of anticompetitive conduct?</b>		08:52:47	5	<b>THE WITNESS:</b> I believe that what the opinion	
08:50:38	6	A. That's right.		08:52:49	6	establishes is, A, a price fixing conspiracy existed	
08:50:38	7	<b>Q. Is that roughly what would be equated</b>		08:52:55	7	and was implemented; B, it had an anticompetitive	
08:50:42	8	<b>normally with the but-for world concept?</b>		08:53:00	8	impact on prices; and, C, there were no	
08:50:45	9	A. Yes.		08:53:05	9	pro-competitive benefits that were accomplished by	
08:50:46	10	<b>Q. And if we speak of the but-for world today or</b>		08:53:08	10	the price fixing conspiracy.	
08:50:49	11	<b>at least if I ask you questions about the but-for</b>		08:53:11	11	<b>Q. MR. SWANSON: And are those premises or</b>	
08:50:51	12	<b>world, you'll understand that that's what I'm</b>		08:53:18	12	<b>conclusions sufficient to dictate what the but-for</b>	
08:50:53	13	<b>referring to?</b>		08:53:21	13	<b>world would look like in this case?</b>	
08:50:54	14	A. I understand what you mean.		08:53:23	14	MR. FRIEDMAN: Objection, form.	
08:50:57	15	<b>Q. Let me ask you to turn to page 8 of your</b>		08:53:26	15	<b>THE WITNESS:</b> I believe -- there were --	
08:51:00	16	<b>report, and at the bottom of that page, actually the</b>		08:53:31	16	there was -- testimony was offered on alternative	
08:51:10	17	<b>last sentence which is a carry-over to the next page,</b>		08:53:36	17	visions of what the competitive marketplace would	
08:51:14	18	<b>you say the starting place for your analysis is that</b>		08:53:40	18	look like, and in my view, the -- the judge accepted	
08:51:17	19	<b>the existence of anticompetitive conduct through</b>		08:53:47	19	the vision of the competitive world that was	
08:51:21	20	<b>price fixing has been established.</b>		08:53:55	20	advocated by the Department of Justice and the	
08:51:23	21	A. Yes.		08:53:57	21	states.	
08:51:23	22	<b>Q. Do you see that?</b>		08:53:57	22	<b>Q. MR. SWANSON: Now, in addition to reviewing</b>	
08:51:24	23	A. Yes.		08:53:59	23	<b>the judge's decision, you also reviewed the class and</b>	
08:51:25	24	<b>Q. And now, you indicated you reviewed the</b>		08:54:03	24	<b>plaintiff stage complaints; is that correct?</b>	
08:51:27	25	<b>judge's decision in the case from July, correct?</b>		08:54:05	25	A. Yes.	

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09:21:33	1	have to be someone who wants to use it as an e-reader	09:24:26	1	of the firms.
09:21:38	2	to buy one. In fact, you know, my grandchildren have	09:24:27	2	<b>Q. Let's take Amazon as a specific concrete example. How would you, during the class period, expect Amazon to take account of the price of e-books when it is setting the price of a Kindle device?</b>
09:21:44	3	iPads and they don't use them as e-readers.	09:24:31	3	
09:21:46	4	So I don't -- there is reasons to believe	09:24:35	4	
09:21:50	5	that if the complementarity exists it's de minimis	09:24:40	5	
09:21:58	6	between an iPad and e-books.	09:24:43	6	MR. FRIEDMAN: Objection, form.
09:22:00	7	<b>Q. Does the price of an e-reader device affect the demand for e-books?</b>	09:24:44	7	THE WITNESS: First of all, I have done no
09:22:10	8		09:24:47	8	independent analysis of that. All right? So I can't
09:22:12	9	MR. FRIEDMAN: Objection, form.	09:24:54	9	give you an answer based on work I've done in this
09:22:13	10	THE WITNESS: I'm sorry. Ask it again. I	09:24:57	10	case. I just don't have an opinion about how they
09:22:15	11	got waylaid here.	09:25:04	11	actually take into account, if at all, Kindle's
09:22:17	12	<b>Q. MR. SWANSON: No problem. I'm glad to repeat a question.</b>	09:25:10	12	prices when setting e-books prices.
09:22:21	13		09:25:13	13	<b>Q. MR. SWANSON: You agree, though, don't you, that the price of e-books and the price of e-reading devices are related as an economic matter?</b>
09:22:22	14	A. It just went out of my mind.	09:25:17	14	MR. FRIEDMAN: Objection, form.
09:22:24	15	<b>Q. Not a problem. Does the price of an e-reading device affect the demand for e-books?</b>	09:25:20	15	THE WITNESS: I agree they could be related,
09:22:30	16		09:25:22	16	yes. That's the point of the discussion in -- in
09:22:35	17	MR. FRIEDMAN: Objection, form.	09:25:25	17	this report. In principle, yes, they are related.
09:22:37	18	THE WITNESS: If it is used significantly in	09:25:28	19	But to say that they're related in a market sense is
09:22:40	19	reading e-books, then an increase in the price of	09:25:35	20	not the same thing as to say that any given firm has
09:22:45	20	that device might affect the demand for e-books, but	09:25:38	21	any firm specific discretion in how those prices are
09:22:49	21	it would depend on what was happening to the prices	09:25:46	22	set.
09:22:53	22	of substitutes for that device.	09:25:49	23	<b>Q. MR. SWANSON: Have you analyzed how long consumers on average use the same e-reading device?</b>
09:22:55	23	If somebody wanted to read e-books on a	09:25:54	24	
09:22:58	24	tablet computer, then a change in the relative price			
09:23:02	25	of one e-reader versus another would just cause them			
		43			45
09:23:06	1	to switch which one they bought. So it might not	09:26:01	1	<b>In other words, until they replace it or stop using it?</b>
09:23:11	2	have a measurable effect, but it could in principle	09:26:03	2	
09:23:13	3	have such an effect. If in general prices of	09:26:04	3	A. Not in the context of this case. I don't
09:23:17	4	e-readers went up, then they would have a depressing	09:26:08	4	recall having -- but I have seen such information,
09:23:21	5	effect on the demand for e-books.	09:26:10	5	but none of that information plays any role in my
09:23:23	6	<b>Q. MR. SWANSON: And if in general the price of e-readers declined, would that have a stimulating effect on the demand for e-books?</b>	09:26:13	6	damages model.
09:23:26	7		09:26:14	7	<b>Q. So if consumers on average use e-reading devices for two years, three years, that assumption would not play any role in your analysis in this case?</b>
09:23:29	8	MR. FRIEDMAN: Objection, form.	09:26:19	8	MR. FRIEDMAN: Objection, form.
09:23:33	9	THE WITNESS: Again with all the caveats I	09:26:25	9	THE WITNESS: No, it has no role in what I
09:23:34	10	just said, yes.	09:26:29	10	did for this case.
09:23:36	11		09:26:34	11	<b>Q. MR. SWANSON: Do you, based on the general information that you have, have an understanding as to what the range is for average use of an e-reading device?</b>
09:23:37	12	THE WITNESS: What kind of retailer?	09:26:39	12	MR. FRIEDMAN: Objection, form.
09:23:39	13	<b>Q. MR. SWANSON: In setting e-reading device prices, how would you expect retailers to take e-book prices into account?</b>	09:26:41	13	THE WITNESS: Yes, which is it's actually my
09:23:43	14		09:26:45	14	understanding is that in the -- in terms of the
09:23:44	15	MR. FRIEDMAN: Objection, form.	09:26:46	15	devices that are used for e-readers, the more
09:23:45	16	THE WITNESS: What kind of retailer?	09:26:50	16	specialized device, the shorter the half-life.
09:23:46	17	<b>Q. MR. SWANSON: A retailer that is selling an e-reading device.</b>	09:26:54	17	And so, you know, at one extreme personal
09:23:49	18		09:26:57	18	computers have a long half-life, like three years.
09:23:51	19	A. They would -- retailers that are -- that are	09:27:01	19	For specialized devices like the original Kindle and
09:24:00	20	integrated to the degree they have any market power	09:27:04	20	
09:24:06	21	would obviously take -- price them jointly, but if	09:27:09	21	
09:24:12	22	the market is competitive, then they wouldn't have			
09:24:16	23	any ability jointly to have any discretion. They			
09:24:20	24	would be setting -- the price would be the market			
09:24:23	25	price determined through the competitive interactions			

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09:32:34	1	<b>price of e-books would be?</b>	09:35:02	1	offer for sale than just the price. The agency model
09:32:35	2	A. Every single publisher sets a price for their	09:35:06	2	consists of a -- a retail price maintenance rule or
09:32:41	3	book, but that price is based upon competitive	09:35:12	3	retail price fixing rule on behalf of wholesalers,
09:32:43	4	interactions in the marketplace. So they set it	09:35:15	4	but the wholesalers are -- the sellers of the e-books
09:32:47	5	independently, but competitive market theory says	09:35:18	5	are competing with each other. It's not, in my mind,
09:32:50	6	that their amount of discretion is de minimis.	09:35:22	6	accurate to say that Macmillan is competing with
09:32:54	7	So the fallacy of composition would be on the	09:35:27	7	Apple and Amazon. Macmillan is competing with
09:32:59	8	one hand, yes, they think of themselves as setting	09:35:31	8	Hachette and Apple is competing with Amazon.
09:33:02	9	their price independently, but on the other hand,	09:35:35	9	<b>Q. Well, is Disney -- who is Disney and</b>
09:33:05	10	it's the interaction among all of them that causes	09:35:38	10	<b>Harlequin, who are they competing with?</b>
09:33:07	11	the market price to be what it is.	09:35:43	11	A. Anybody who -- anybody can be in both
09:33:09	12	<b>Q. I'm focusing on retail price of trade</b>	09:35:45	12	markets, but that is to say you can be someone who is
09:33:13	13	<b>e-books. Before agency, was there a single publisher</b>	09:35:49	13	both a retailer and a publisher. So you can -- your
09:33:17	14	<b>setting the retail price of an e-book?</b>	09:35:54	14	retail activity can be competing with other
09:33:19	15	A. I don't know whether any -- there was a	09:35:58	15	retailers, but your publishing activity is competing
09:33:21	16	single publisher. That wasn't the common practice,	09:36:06	16	with other publishers.
09:33:24	17	but I do not know if there was anybody who was using	09:36:07	17	<b>Q. As an economist, your view is that a</b>
09:33:27	18	a different model. It's not -- again, it's not	09:36:09	18	<b>publisher who has the power to set its retail price</b>
09:33:30	19	relevant to what I did.	09:36:13	19	<b>is not competing with all the other entities who are</b>
09:33:31	20	<b>Q. After agency -- the definition of agency, is</b>	09:36:15	20	<b>setting retail prices in the same relevant market?</b>
09:33:40	21	<b>it not, is that the publisher is setting the retail</b>	09:36:17	21	MR. FRIEDMAN: Objection, form.
09:33:43	22	<b>price, correct, in this context?</b>	09:36:18	22	THE WITNESS: A publisher is competing with
09:33:45	23	A. That's part of it, yes.	09:36:21	23	other publishers. And it may make a mistake in terms
09:33:47	24	<b>Q. And after --</b>	09:36:25	24	of its retail pricing rule, but its retail outlets,
09:33:52	25	A. There are things that are not agency models	09:36:30	25	that a separate market. Retail and wholesale are not
		51		53	
09:33:54	1	for which that statement would be true. So that's	09:36:31	1	the same relevant market, and it's not correct to say
09:33:55	2	why your statement is incorrect. But, yes, part of	09:36:34	2	that the publisher who is engaged in retail price
09:33:58	3	what the agency model is about is the publisher	09:36:38	3	maintenance is in the retail market. It's not.
09:34:03	4	setting a retail price. It's a retail price	09:36:40	4	<b>Q. MR. SWANSON: Is it your understanding that</b>
09:34:06	5	maintenance agreement.	09:36:42	5	<b>Apple entered the trade e-books market through the</b>
09:34:07	6	<b>Q. Well, agency is a model that vests the</b>	09:36:46	6	<b>agency model?</b>
09:34:11	7	<b>decisionmaking authority in the publisher as opposed</b>	09:36:48	7	MR. FRIEDMAN: Objection, form.
09:34:14	8	<b>to the retailer, correct?</b>	09:36:49	8	THE WITNESS: I don't know what you mean by
09:34:16	9	A. Well, yes, that's one characteristic of it,	09:36:51	9	that, and I don't know why it's relevant to a damages
09:34:19	10	and then there are other things that aren't agency	09:36:55	10	model. I have certainly made no assumptions about
09:34:21	11	models where that also is true. So...	09:37:01	11	anything related to why Apple entered the e-books
09:34:26	12	<b>Q. Isn't it true that every publisher who</b>	09:37:05	12	market other than what's in the opinion.
09:34:28	13	<b>adopted agency became a retail competitor of Amazon</b>	09:37:09	13	<b>Q. MR. SWANSON: In your view, for purposes of</b>
09:34:33	14	<b>to that extent?</b>	09:37:12	14	<b>your modeling, have you made an assumption about</b>
09:34:34	15	MR. FRIEDMAN: Objection, form.	09:37:14	15	<b>whether Apple would have distributed e-books in the</b>
09:34:36	16	THE WITNESS: I don't think that's the	09:37:17	16	<b>but-for world?</b>
09:34:37	17	appropriate way to characterize it, no.	09:37:19	17	A. Not beyond what's stated in the opinion, no.
09:34:39	18	<b>Q. MR. SWANSON: So a publisher, an independent</b>	09:37:23	18	<b>Q. And did the Court make a finding on that</b>
09:34:44	19	<b>publisher who entered into an agency agreement with</b>	09:37:26	19	<b>point in the opinion?</b>
09:34:46	20	<b>Apple and gained the power to set its own prices for</b>	09:37:26	20	A. What the Court said is it's irrelevant, that
09:34:50	21	<b>its e-books wasn't competing with all the books the</b>	09:37:31	21	it's not -- that is not -- there is no
09:34:54	22	<b>Amazon was setting prices for on wholesale?</b>	09:37:35	22	pro-competitive benefit of that form arising from the
09:34:56	23	MR. FRIEDMAN: Objection, form.	09:37:39	23	implementation of the agency model. So at that point
09:34:57	24	THE WITNESS: The competition occurs among	09:37:41	24	I dismiss it as something I need to take into
09:34:59	25	the retailers, and there's other aspects of what they	09:37:44	25	account.

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09:42:27	1	<b>discussed it in the Court's decision, are you taking that as a predicate fact for your modeling?</b>	09:45:22	1 elements in Amazon's model is what's the price at
09:42:31	2		09:45:27	2 Barnes & Noble, like just as at Barnes & Noble one of
09:42:36	3	A. No, it's -- the -- what I'm taking as a	09:45:31	3 the elements is what's the price at Amazon.
09:42:40	4	predicate fact is are there pro-competitive	09:45:33	4 So it isn't -- the model is a reduced form
09:42:44	5	justifications for the collusive agreement, and the	09:45:38	5 pricing model that has both supply and demand
09:42:48	6	Court found there were none. So, therefore, I didn't	09:45:42	6 characteristics in it. It isn't intended to be -- it
09:42:50	7	have to get into an analysis of the potential	09:45:44	7 is intended to be a marketing, delivery and price
09:42:53	8	pro-competitive justifications.	09:45:48	8 estimated through a reduced form model. It's not
09:42:54	9	<b>Q. Would Amazon have implemented a 70 percent royalty option under the Kindle direct publishing platform for self-publishers in the but-for world?</b>	09:45:51	9 intending to be anybody's pricing algorithm.
09:42:57	10		09:45:53	<b>Q. Have you ever had access to the algorithms used by Amazon for e-book pricing?</b>
09:43:01	11		09:45:58	A. I don't have -- I have not seen the actual
09:43:05	12	MR. FRIEDMAN: Objection, form.	09:46:00	algorithms, no.
09:43:07	13	<b>THE WITNESS:</b> I have no idea what they would	09:46:03	
09:43:09	14	have adopted in the but-for world in terms of the	09:46:04	<b>Q. Are you aware whether Amazon produced any document showing its precise methodology for determining e-book prices?</b>
09:43:10	15	specific contract form with independent publishers.	09:46:09	A. I don't remember whether they did or didn't.
09:43:13	16	The issue is not -- that I'm addressing is what the	09:46:11	I mean, it would be irrelevant anyway since they base
09:43:18	17	price would be of those books, not what the impact	09:46:12	it on Barnes & Noble prices. So that tells me that
09:43:21	18	for the publisher would be.	09:46:14	whatever their algorithm spits out, if the price
09:43:23	19	<b>Q. MR. SWANSON: Did you investigate how</b>	09:46:16	that's spit out is higher than Barnes & Noble, they
09:43:24	20	<b>retailers determine their pricing under the wholesale</b>	09:46:20	will set the price equal to Barnes & Noble price.
09:43:27	21	<b>model?</b>	09:46:23	So for my purposes recreating their pricing
09:43:27	22	A. Yes, I reference the discovery material from	09:46:26	formula wouldn't be accurate. It would tend to
09:43:38	23	Amazon and I think Barnes & Noble within the report	09:46:29	produce an imprecise and incorrect estimate of
09:43:41	24	about how they did pricing, and that fed into how I	09:46:33	
09:43:46	25	constructed the econometric model of pricing. I	09:46:36	
		59		61
09:43:51	1	wanted to make it consistent with Amazon's model.	09:46:40	1 pricing because it wouldn't be just the book
09:43:54	2	<b>Q. And are you aware that Amazon invested</b>	09:46:45	2 characteristics that were taken into account. It
09:43:58	3	<b>substantial time and money in developing a system for</b>	09:46:48	3 would be market conditions as well.
09:44:00	4	<b>setting the retail price of e-books?</b>	09:46:49	<b>Q. Are you aware that Amazon considers its</b>
09:44:02	5	MR. FRIEDMAN: Objection, form.	09:46:54	<b>methodologies for determining e-book prices to be</b>
09:44:03	6	<b>THE WITNESS:</b> I -- obviously it takes time	09:46:57	<b>among its most closely guarded trade secrets?</b>
09:44:09	7	and money to develop a pricing algorithm, yes. That	09:47:01	MR. FRIEDMAN: Objection, form.
09:44:15	8	fact played no role in anything I did.	09:47:03	<b>THE WITNESS:</b> I'm not surprised that that
09:44:17	9	<b>Q. MR. SWANSON: You do refer at multiple points</b>	09:47:05	would be true, but I don't recall having known that
09:44:22	10	<b>in your report to Amazon's pricing formula or pricing</b>	09:47:07	and it doesn't play any role in my analysis.
09:44:26	11	<b>algorithm, don't you?</b>	09:47:09	<b>Q. MR. SWANSON: Are you aware that access to</b>
09:44:28	12	A. Yes.	09:47:11	<b>such information is restricted even within Amazon?</b>
09:44:29	13	<b>Q. And what do you mean by that?</b>	09:47:14	MR. FRIEDMAN: Same objection.
09:44:31	14	A. What I mean by that is a way of classifying	09:47:15	<b>THE WITNESS:</b> Again, I'm not surprised that's
09:44:37	15	books by how long they've been out, what kind of book	09:47:18	true. I don't recall ever having read those words,
09:44:42	16	they are, what their retail price is and mapping that	09:47:20	but if you would have asked me do I think they keep
09:44:46	17	into an e-book price on Amazon.	09:47:23	this stuff confidential, I would have said yes,
09:44:49	18	<b>Q. Does your model attempt to reflect then</b>	09:47:27	because almost everybody keeps their pricing
09:44:56	19	<b>Amazon's pricing algorithm?</b>	09:47:29	algorithm confidential, including Apple.
09:45:00	20	A. It wouldn't be Amazon's pricing algorithm,	09:47:31	<b>Q. MR. SWANSON: Do you claim to understand how</b>
09:45:05	21	no. It would -- it's a model that takes into account	09:47:34	<b>Amazon's pricing formula operated during the period</b>
09:45:09	22	the factors that Amazon took into account. So it's	09:47:37	<b>from 2008 through 2012?</b>
09:45:13	23	not intended to be anybody's pricing algorithm,	09:47:41	A. Only insofar as revealed in the report, which
09:45:16	24	because price in a market is the result of	09:47:43	is to identify variables that they claimed to take
09:45:19	25	competitive interactions among firms, and one of the	09:47:46	into account and then to see if they in fact do

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09:47:49	1	affect prices in the model.	09:50:18	1 applying that to all retailers, not just Amazon
09:47:51	2	<b>Q. Are you aware that Google attempted to backward engineer Amazon's pricing formula and failed?</b>	09:50:22	2 because the nature of the competitive process would
09:47:54	3		09:50:25	3 be if one of them prices on that basis, the others
09:48:00	4		09:50:28	4 will, too, if for no other reason that everybody
09:48:00	5	MR. FRIEDMAN: Objection, form.	09:50:33	5 looks at everybody else's price to set their own
09:48:01	6	THE WITNESS: No. I don't know that that's	09:50:36	6 price.
09:48:04	7	true, but, again, it doesn't matter.	09:50:37	<b>Q. MR. SWANSON: How does Amazon's pricing algorithm or formula incorporate the price of hard copy books?</b>
09:48:07	8	<b>Q. MR. SWANSON: Is Amazon's pricing formula static or dynamic?</b>	09:50:39	
09:48:10	9		09:50:42	
09:48:12	10	MR. FRIEDMAN: Objection, form.	09:50:43	MR. FRIEDMAN: Objection, form.
09:48:13	11	THE WITNESS: What do you mean by static	09:50:44	THE WITNESS: I don't know. I don't know
09:48:15	12	versus dynamic?	09:50:45	anything about their algorithm. All I know is that
09:48:17	13	<b>Q. MR. SWANSON: Well, does it change frequently? Let's start with that.</b>	09:50:53	there's documents that say that might be important.
09:48:19	14		09:50:55	So I let the econometrics speak for itself as to
09:48:20	15	MR. FRIEDMAN: Form.	09:50:58	whether that's important.
09:48:21	16	THE WITNESS: I don't know what the actual	09:50:59	<b>Q. MR. SWANSON: Do you know how Amazon's pricing formula treats the genre as a factor that influences pricing?</b>
09:48:24	17	algorithm is. All I know is the factors that they	09:51:03	
09:48:30	18	take into account. So I wouldn't be able to answer	09:51:06	
09:48:36	19	any question at all about their proprietary company	09:51:08	MR. FRIEDMAN: Objection, form.
09:48:39	20	information. All I know is what variables they say	09:51:08	THE WITNESS: I do not know anything about
09:48:42	21	are important.	09:51:10	the actual pricing algorithm they use. I'm not
09:48:42	22	<b>Q. MR. SWANSON: Well, where --</b>	09:51:14	attempting to recreate the pricing algorithm of
09:48:45	23	A. And I suspect those do change through time,	09:51:16	Amazon.
09:48:48	24	but it doesn't matter to me. All that matters is	09:51:17	<b>Q. MR. SWANSON: Does the Amazon pricing formula or algorithm charge the same price for the same title</b>
09:48:51	25	that I have the variables that are -- that are	09:51:21	
		63		65
09:48:53	1	important in my -- I test in the equation the extent	09:51:25	<b>at the same time to all buyers?</b>
09:48:58	2	to which the factors that I see in these discovery	09:51:26	MR. FRIEDMAN: Objection, form.
09:49:02	3	documents to see if they affect price, but that	09:51:28	THE WITNESS: There -- there is a common
09:49:05	4	doesn't mean that they reproduce the pricing	09:51:34	price, but sometimes there's -- Amazon offers deals
09:49:07	5	algorithm. I'm not trying to reproduce the pricing	09:51:39	to people, but I do not know the degree to which that
09:49:10	6	algorithm.	09:51:42	applies to e-books. I know it applies to hard copy
09:49:10	7	<b>Q. What are the variables used in Amazon's pricing algorithm?</b>	09:51:45	books. I do not know the degree to which they have
09:49:14	8		09:51:48	special deals with respect to e-book prices. I've
09:49:14	9	A. Well, one of the ones that I focus on	09:51:53	seen no evidence of that in the data.
09:49:17	10	especially is the 90-day new release window, which is	09:51:59	<b>Q. MR. SWANSON: Isn't it a fact that Amazon engages in price discrimination and charges different consumers at the same time different prices for the same e-books?</b>
09:49:22	11	somewhat different than the industry definition. And	09:52:01	
09:49:27	12	so that's one. But they also take into account genre	09:52:04	
09:49:33	13	and, as I said before, retail price, what the status	09:52:07	
09:49:37	14	of hardback -- hard copy releases are, things like	09:52:08	MR. FRIEDMAN: Objection, form.
09:49:40	15	that.	09:52:10	THE WITNESS: You have to explain -- describe
09:49:40	16	<b>Q. Focusing on the 90-day new release, Amazon's pricing algorithm didn't always treat new releases in a particular way for the first 90 days only, did it?</b>	09:52:15	to me exactly what you mean by engaging in price
09:49:46	17		09:52:19	discrimination here. What are you referring to that
09:49:51	18		09:52:22	you are calling price discrimination? Because price
09:49:57	19	MR. FRIEDMAN: Objection, form.	09:52:26	discrimination has an economic meaning that is pretty
09:49:58	20	THE WITNESS: Again, I don't know what's	09:52:32	complicated. So I want to know what you mean by
09:50:00	21	inside their actual algorithm. All I know is what	09:52:34	that.
09:50:04	22	the documents say about what kinds of variable they	09:52:35	<b>Q. MR. SWANSON: Well, we can strike that from the sentence. Isn't it true that Amazon with</b>
09:50:07	23	consider. And so I have this 90-day variable in	09:52:36	<b>regularity during the class period charged different</b>
09:50:10	24	there as a way to try to capture as much as I can	09:52:39	<b>consumers different prices at the same time for the</b>
09:50:15	25	what's happening in terms of retail pricing, but I'm	09:52:42	

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09:52:45	1	same title?		
09:52:46	2	MR. FRIEDMAN: Objection, form.		
09:52:48	3	THE WITNESS: I am not aware of that being true for e-books. I'm not aware of data that suggest it's true, other than what I've discussed before, which is the presence of some short-term discounts for specific things.		
09:52:52	4			
09:52:58	5			
09:53:00	6			
09:53:03	7			
09:53:04	8	Q. MR. SWANSON: Let's take backlist pricing. You've got data that show all the prices that Amazon charged, correct?		
09:53:07	9			
09:53:10	10	A. Yes.		
09:53:11	11	Q. And you can look at any given day and find out if Amazon charged all the consumers who bought a particular title the exact same price, correct?		
09:53:14	12			
09:53:17	13	A. In principle, you could do a histogram of that, yes. In practice, the number of data points is so large, in the time frame I had I couldn't do that.		
09:53:20	14			
09:53:23	15	Q. Have you looked at any of those questions as to whether or not Amazon charges the same price to the same consumers for the same title?		
09:53:25	16			
09:53:28	17	A. I don't know the answer to the question, do they engage in price differences in the same day for different consumers. I do not know the answer to that.		
09:53:30	18			
09:53:33	19	Q. That's an easy question to answer given the		
09:53:34	20			
09:53:35	21			
09:53:38	22			
09:53:41	23			
09:53:44	24			
09:53:44	25			
		67		69
09:53:47	1	data you have?		
09:53:48	2	A. No, it's a very hard question to answer because the data is so large. Yes, in principle one could do it, but because of the size of the data set, it's difficult.		
09:53:50	3			
09:53:54	4	Q. Was that an important question for purposes of your opinions here?		
09:53:57	5			
09:53:57	6	A. No, because if what they give is certain people in certain circumstances get percentage discounts, it's still -- it's still a percentage discount off of an elevated list price. So there would still be elevation of price.		
09:53:59	7	Q. What leads you to speak in terms of percentage discounts in that response?		
09:54:01	8			
09:54:04	9	A. Because that's what I'm aware of independently, the kinds of things that Amazon does.		
09:54:07	10	But, again, I've seen nothing in the record that systematic gives me an insight into the extent to which there is anything other than just that occasional percentage discount offers to specific customers.		
09:54:11	11	Q. So you, for example, don't know if the Amazon pricing algorithm adds two or three cents to a particular consumer's price compared to another consumer's price as opposed to a percentage?		
09:54:14	12			
09:54:16	13			
09:54:20	14			
09:54:22	15			
09:54:24	16			
09:54:28	17			
09:54:34	18			
09:54:40	19			
09:54:43	20			
09:54:45	21			
09:54:46	22			
09:54:50	23			
09:54:54	24			
09:54:57	25			

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10:17:06	1	A. The collusive version of the agency model	10:19:50	1	<b>in the but-for world?</b>	
10:17:10	2	became effective for some publishers on April 1st.	10:19:51	2	MR. FRIEDMAN: Objection, form.	
10:17:16	3	<b>Q. And the agency agreements between the</b>	10:19:53	3	THE WITNESS: I would expect that people who	
10:17:20	4	<b>defendant publishers and Apple were signed in</b>	10:19:58	4	are engaged in e-book retailing would make money on	
10:17:23	5	<b>January 2010, correct?</b>	10:20:01	5	the fact they were e-book retailing or get out of the	
10:17:23	6	MR. FRIEDMAN: Objection, form.	10:20:05	6	business, yes.	
10:17:24	7	THE WITNESS: I haven't memorized the dates.	10:20:05	7	<b>Q. MR. SWANSON: And is it your expectation that</b>	
10:17:26	8	They're in the record, and I will let the record	10:20:10	8	<b>in the but-for world Amazon's profitability would be</b>	
10:17:29	9	speak for itself. It plays no role in my analysis.	10:20:15	9	<b>positive with respect to the sale of trade e-books?</b>	
10:17:32	10	<b>Q. MR. SWANSON: Was the 9.99 price point for</b>	10:20:20	10	MR. FRIEDMAN: Objection, form.	
10:17:37	11	<b>new releases under the wholesale model generally</b>	10:20:22	11	THE WITNESS: I would expect them to be	
10:17:42	12	<b>above or below incremental cost?</b>	10:20:27	12	profitable selling e-books in general. With respect	
10:17:45	13	MR. FRIEDMAN: Objection, form.	10:20:30	13	to any specific product, no, I wouldn't expect	
10:17:47	14	THE WITNESS: Sometimes above, sometimes	10:20:33	14	anything about whether that product was profitable or	
10:17:49	15	below.	10:20:35	15	not.	
10:17:51	16	<b>Q. MR. SWANSON: Under what circumstances do</b>	10:20:36	16	<b>Q. MR. SWANSON: Any specific title?</b>	
10:17:54	17	<b>economists expect rational, profit-maximizing</b>	10:20:37	17	A. Or even specific category. Yes, overall	
10:17:57	18	<b>retailers to set prices below incremental cost?</b>	10:20:40	18	profitability. No with respect to any specific	
10:18:02	19	A. Promotional.	10:20:44	19	thing.	
10:18:03	20	<b>Q. Any other circumstances that you can think</b>	10:20:44	20	<b>Q. Have you analyzed whether Amazon was losing</b>	
10:18:06	21	<b>of?</b>	10:20:51	21	<b>money on e-books before April 1st, 2010?</b>	
10:18:07	22	A. Why don't you ask me a question? I mean,	10:20:54	22	MR. FRIEDMAN: Objection, form.	
10:18:15	23	pricing has to do with costs and pricing has to do	10:20:55	23	THE WITNESS: I have undertaken no	
10:18:19	24	with advertising, and so I would expect both of those	10:20:56	24	independent analysis of the financial condition of	
10:18:24	25	things to affect how pricing was set.	10:20:58	25	Amazon's e-book business.	
			75			77
10:18:30	1	<b>Q. Right. And understand that for promotional</b>	10:21:00	1	<b>Q. MR. SWANSON: Did you analyze whether Amazon</b>	
10:18:33	2	<b>reasons a rational, profit-maximizing retailer could</b>	10:21:05	2	<b>was making money on Kindle devices before the</b>	
10:18:39	3	<b>set price below incremental cost. Are there any</b>	10:21:08	3	<b>conspiracy period?</b>	
10:18:43	4	<b>other reasons or circumstances you can think of as an</b>	10:21:09	4	A. I have undertaken no independent analysis of	
10:18:45	5	<b>economist why such a retailer would do that?</b>	10:21:11	5	the profitability of their device business for the	
10:18:47	6	A. The defendants in this case claimed that	10:21:16	6	purposes of writing my report.	
10:18:49	7	Amazon was engaged in predatory pricing, but that was	10:21:18	7	<b>Q. Would you take issue with the</b>	
10:18:52	8	rejected by the Court.	10:21:22	8	<b>characterization that Amazon before the agency</b>	
10:18:54	9	<b>Q. Any other circumstances you can think of</b>	10:21:25	9	<b>agreements was at best breaking even on e-books?</b>	
10:18:57	10	<b>other than promotional reasons or predatory pricing?</b>	10:21:27	10	MR. FRIEDMAN: Objection, form.	
10:19:00	11	A. Not that I -- I'm aware of. Maybe I'm just	10:21:28	11	THE WITNESS: I have again taken no -- done	
10:19:06	12	forgetting something that you can tell me about. I	10:21:32	12	no independent analysis of whether they were or were	
10:19:09	13	don't know that it would play any role in my report,	10:21:34	13	not making money on Kindles before and after the	
10:19:11	14	but if you want to ask me a question about something	10:21:37	14	agency agreement.	
10:19:13	15	else, I can, A, say whether I've thought about it	10:21:38	15	<b>Q. MR. SWANSON: Or e-books?</b>	
10:19:17	16	and, B, say whether it would play any role in	10:21:39	16	A. Or e-books.	
10:19:20	17	estimating damages.	10:21:41	17	<b>Q. Would you expect Amazon's pricing strategy</b>	
10:19:21	18	<b>Q. Are you assuming that Amazon would continue</b>	10:21:48	18	<b>with respect to e-books sold on the wholesale model</b>	
10:19:23	19	<b>to price some e-books below incremental cost in the</b>	10:21:52	19	<b>to be different in the but-for world than in the</b>	
10:19:27	20	<b>but-for world to the same extent that it had in the</b>	10:21:54	20	<b>actual world?</b>	
10:19:30	21	<b>actual world?</b>	10:21:56	21	MR. FRIEDMAN: Objection, form.	
10:19:30	22	A. I see no reason to believe that there would	10:21:58	22	THE WITNESS: I have no clue what that	
10:19:36	23	be a change in Amazon's pricing policy on April 1st	10:22:00	23	question means. What do you mean by actual world?	
10:19:40	24	other than the implementation of the agency model.	10:22:06	24	The but-for world is supposed to be a guess about	
10:19:44	25	<b>Q. Overall, would Amazon make money on e-books</b>	10:22:08	25	what the actual world would look like in the absence	

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10:27:34	1	good with assumptions.	10:29:55	1 and as part of the deal to generate a minimum retail
10:27:35	2	So if you assumed that Barnes & Noble could not continue to match Amazon's prices in the but-for world, how would that affect your modeling?	10:29:59	2 price margin because their objective here, as stated
10:27:38	3		10:30:04	3 in my report derived from the opinion, was to protect
10:27:41	4		10:30:07	4 sales of hard copies.
10:27:44	5	MR. FRIEDMAN: Objection, form.	10:30:09	5 So their profit calculation is based in part
10:27:45	6	THE WITNESS: If I assume that and I also assume that the market is competitive, then I would	10:30:12	6 on the price of e-books and in part on the sales and
10:27:47	7	be predicting that Barnes & Noble would exit the	10:30:15	7 prices of hard copies. What they wanted to do was
10:27:50	8	industry and the only firm left would be Amazon and	10:30:18	8 protect -- arrest the decline in the sale of hard
10:27:53	9	it would be true of everybody else. So Amazon would	10:30:21	9 copies.
10:27:56	10	start to be a complete monopolist because the -- it's	10:30:23	10 Q. MR. SWANSON: And so you understood that in
10:27:59	11	the competitive process that determines the price,	10:30:27	11 the actual world as part of the unlawful conduct the
10:28:07	12	and Barnes & Noble would be unsuccessful if it	10:30:32	12 publisher defendants took wholesale prices to a lower
10:28:09	13	systematically priced above Amazon.	10:30:35	13 level?
10:28:13	14	Q. MR. SWANSON: Have you made any evaluation as to whether or not Barnes & Noble's e-book business would be profitable in the but-for world?	10:30:35	14 MR. FRIEDMAN: Objection, form.
10:28:23	18	MR. FRIEDMAN: Objection.	10:30:36	15 THE WITNESS: No, that's not what I said. I
10:28:23	19	THE WITNESS: I have undertaken no	10:30:38	16 said that in some cases they actually cut the price
10:28:25	20	independent analysis of Barnes & Noble's	10:30:41	17 as part of the collusive agreement. So the pricing
10:28:27	21	profitability, and it's irrelevant to anything I did	10:30:44	18 model I'm assuming is the one that -- a continuation
10:28:29	22	in my report.	10:30:48	19 of the one that was in place prior to the institution
10:28:30	23	Q. MR. SWANSON: So if under the prices that	10:30:51	20 of the collusive agreement.
10:28:33	24	would prevail in the but-for world Barnes & Noble	10:30:52	21 Q. MR. SWANSON: I think one of us may have
10:28:36	25	would be losing substantial amounts of money, in your	10:30:55	22 misunderstood the other. I said took wholesale
			10:30:59	23 prices to a lower level. That is, I think, what
			10:31:01	24 you're saying.
			10:31:02	25 A. You said under competition in the but-for
		83		85
10:28:39	1	view, that's irrelevant to the assessment of damages?	10:31:04	1 world. The answer to that, if the prices were
10:28:41	2	A. Yes.	10:31:07	2 lowered because of the collusive agreement for some
10:28:42	3	Q. In your view, did the agency model eliminate	10:31:09	3 books, obviously they wouldn't be lower still in the
10:28:51	4	all retail price competition in the trade e-books	10:31:13	4 absence. Maybe some e-book prices at the wholesale
10:28:55	5	market?	10:31:17	5 level would have been higher in the absence of a
10:28:55	6	MR. FRIEDMAN: Objection, form.	10:31:19	6 collusive agreement. But our interest here is not
10:28:58	7	THE WITNESS: It didn't eliminate competition	10:31:21	7 what the wholesale price was. Our interest here is
10:29:01	8	among publishers that were not part of the	10:31:25	8 what the retail price was.
10:29:04	9	conspiracy. It probably reduced its intensity and	10:31:27	9 Q. In the real world, what you call the
10:29:08	10	caused prices to be somewhat higher. So I haven't	10:31:29	10 collusive world, did wholesale prices drop for
10:29:12	11	modeled that. So I underestimate damages.	10:31:32	11 nondefendant publishers as well?
10:29:15	12	Q. MR. SWANSON: Would the publisher defendants	10:31:34	12 MR. FRIEDMAN: Objection, form.
10:29:17	13	have competed with each other on the wholesale price	10:31:36	13 THE WITNESS: The model takes into account a
10:29:20	14	of release e-books in the but-for world?	10:31:41	14 general declining trend in e-book prices by having a
10:29:22	15	MR. FRIEDMAN: Objection, form.	10:31:45	15 time variable in there, yes.
10:29:23	16	THE WITNESS: Again, I haven't done an	10:31:46	16 Q. MR. SWANSON: And would the market wholesale
10:29:29	17	independent analysis of the intensity of competition,	10:31:50	17 price have been that low absent the collusion?
10:29:33	18	but I presume that in the absence of collusion they	10:31:53	18 MR. FRIEDMAN: Objection, form.
10:29:37	19	have competed as they had before the collusion	10:31:54	19 THE WITNESS: What wholesale market price?
10:29:39	20	started, yes.	10:31:58	20 Again, it's a very vague and general question, and I
10:29:40	21	Q. MR. SWANSON: So would you expect lower	10:32:01	21 want to know what exactly you're talking about.
10:29:42	22	wholesale prices in the but-for world?	10:32:03	22 Q. MR. SWANSON: So there is no market wholesale
10:29:44	23	A. Actually, the nature of the competition was	10:32:06	23 price, in your view, for trade e-books?
10:29:48	24	different in this case because they made a sacrifice	10:32:08	24 MR. FRIEDMAN: Objection, form.
10:29:51	25	in wholesale prices of e-books in order to induce --	10:32:09	25 THE WITNESS: There's market wholesale prices

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10:32:11	1	at the level of a book, and there is something about	10:34:37	1	A. You said Random House.
10:32:14	2	average prices, but I -- your question was vague	10:34:39	2	<b>Q. I apologize.</b>
10:32:16	3	about what you meant. All right? And so you're	10:34:40	3	MR. FRIEDMAN: I think you said Amazon, but
10:32:19	4	going to have to clarify it for me before I can	10:34:42	4	restate it.
10:32:24	5	answer the question.	10:34:43	5	THE WITNESS: I'm having trouble parsing it
10:32:24	6	<b>Q. MR. SWANSON: Well, let's speak in terms of</b>	10:34:45	6	out.
10:32:27	7	<b>average wholesale prices. Are you aware of what the</b>	10:34:46	7	MR. SWANSON: No problem. And I'm entirely
10:32:31	8	<b>average wholesale price was in the trade e-books</b>	10:34:48	8	capable of misstating it. So I'm sure Mr. Friedman
10:32:34	9	<b>market?</b>	10:34:51	9	will keep me honest.
10:32:34	10	A. There are calculations done by Dr. Burtis	10:34:53	10	THE WITNESS: Don't trust him for that.
10:32:37	11	about that, but they don't take into account	10:34:54	11	MR. SWANSON: All right. We'll stipulate.
10:32:39	12	compositional effects. So you can have a change in	10:34:59	12	MR. FRIEDMAN: Objection to both of you.
10:32:43	13	average price because on average prices are changing	10:35:03	13	<b>Q. MR. SWANSON: All right. Let me try it</b>
10:32:45	14	or you can have a change because the composition of	10:35:06	14	<b>again. In the but-for world, would Amazon have a</b>
10:32:47	15	sales is changing among higher priced versus lower	10:35:08	15	<b>higher or lower share of the relevant market than it</b>
10:32:53	16	priced categories.	10:35:11	16	<b>had in the real world?</b>
10:32:55	17	So, again, what you mean by average depends	10:35:15	17	MR. FRIEDMAN: Objection, form.
10:32:58	18	on which of those you're interested in. Are you	10:35:16	18	<b>THE WITNESS: I haven't addressed that</b>
10:33:00	19	talking about a price index, or are you talking about	10:35:18	19	<b>question. I've done no analysis of it. It has no</b>
10:33:02	20	an average price that takes into account shifts in	10:35:21	20	<b>relevance to my report.</b>
10:33:05	21	composition.	10:35:22	21	<b>Q. MR. SWANSON: You don't have an expectation</b>
10:33:06	22	MR. FRIEDMAN: I don't want to interrupt. I	10:35:24	22	<b>based on the things that you have analyzed?</b>
10:33:09	23	just want to make sure, were you talking wholesale	10:35:27	23	A. No, I actually do not have an expectation.
10:33:11	24	price or retail price in your answer?	10:35:30	24	It's an empirical question, not a theoretical
10:33:14	25	THE WITNESS: Either one. Both would be	10:35:33	25	question. So I don't -- I can't really address it.
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10:33:17	1	true, but I understand he asked me about wholesale.	10:35:36	1	<b>Q. In your disaggregation calculation or</b>
10:33:20	2	<b>calculations, you considered the retailers' overall</b>	10:35:48	2	<b>market share of publisher defendant titles sold under</b>
10:33:24	3	<b>Amazon and other retailers continue to rely on</b>	10:35:54	3	<b>the agency model. Is that a fair statement?</b>
10:33:26	4	<b>wholesale contracts with publishers?</b>	10:35:58	4	
10:33:28	5	MR. FRIEDMAN: Objection, form.	10:36:00	5	A. Yes, it is the case I considered the identity
10:33:31	6	<b>THE WITNESS: That was irrelevant to me. I</b>	10:36:04	6	of the retailer, yes, which would reflect their
10:33:33	7	<b>haven't done any independent analysis about what</b>	10:36:06	7	market share.
10:33:35	8	<b>contract forms or business relationships would emerge</b>	10:36:08	8	<b>Q. And you have some assumptions about what that</b>
10:33:39	9	<b>between Amazon and individual publishers in the</b>	10:36:14	9	<b>market share would be in the but-for world or at</b>
10:33:42	10	<b>absence of the collusive agreement.</b>	10:36:17	10	<b>least you modeled?</b>
10:33:43	11	<b>Q. MR. SWANSON: So you're not planning on</b>	10:36:19	11	A. Well, the model is not about market share.
10:33:45	12	<b>testifying that Random House would not have switched</b>	10:36:24	12	It's not trying to predict market share. The model
10:33:48	13	<b>to agency in early 2011 in the but-for world?</b>	10:36:27	13	is about the role of the identity of the retailer in
10:33:51	14	A. What I'm testifying about is what the price	10:36:30	14	setting -- in pricing. So I allowed that to have an
10:33:55	15	effect was, not whether it was an agency model. It's	10:36:35	15	effect.
10:33:58	16	whether the price was subject to collusion, and what	10:36:35	16	<b>Q. Did the publisher defendants' market share of</b>
10:34:03	17	form the retail price collusion took is irrelevant.	10:36:40	17	<b>titles sold under the agency model increase, decrease</b>
10:34:07	18	What's relevant is the existence of collusion.	10:36:45	18	<b>or stay the same after the agency agreements were</b>
10:34:09	19	<b>Q. In the but-for world, would Amazon have a</b>	10:36:49	19	<b>implemented?</b>
10:34:12	20	<b>higher or lower share of the relevant market than it</b>	10:36:50	20	A. I haven't analyzed that question. It would
10:34:16	21	<b>did in reality?</b>	10:36:52	21	depend on things other than the implementation of the
10:34:18	22	MR. FRIEDMAN: Objection, form.	10:36:55	22	agency model, such as the hit rate of the publishers
10:34:21	23	THE WITNESS: It's almost impossible to state	10:36:58	23	with regard to best sellers. So it's -- you know, I
10:34:32	24	because what Random House's share is going to be --	10:37:02	24	have not attempted to estimate the market shares of
10:34:36	25	<b>Q. MR. SWANSON: Amazon.</b>	10:37:05	25	publishers either in or out of the collusive

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10:37:08	1	agreement.	10:39:18	1 <b>Q. MR. SWANSON: Do you believe that an effective collusive agreement must not be undercut by competitors who are not part of the agreement?</b>
10:37:09	2	<b>Q. Well, isn't it true that the share of sales attributable to the publisher defendants' titles dropped?</b>	10:39:19	2 MR. FRIEDMAN: Objection, form.
10:37:14	3		10:39:23	3 THE WITNESS: Well, the effectiveness of a collusive agreement depends upon the extent of which
10:37:19	4		10:39:25	4 those outside can undo it, can make it unprofitable,
10:37:19	5	A. I believe so, but it doesn't play any role in my analysis. I mean, that's the point is, you know,	10:39:26	5 yes.
10:37:21	6	there's a fact out there about what's happening to market shares. But one would sort of expect, all	10:39:28	6 <b>Q. MR. SWANSON: Is it true that for a collusive agreement to work the parties to the agreement must possess sufficient market power to be able to affect total supply and, hence, prices?</b>
10:37:25	7	else being equal, if somebody charges a higher price than their competitors they'd sell less. But there	10:39:30	7 A. That's exactly what I said earlier. That's
10:37:27	8	are so many other things going on that that -- in and	10:39:34	8 an empirical question again. They must be able to
10:37:30	9	of itself, that partial equilibrium statement is	10:39:36	9 exercise more market power by acting collusively, and
10:37:34	10	inadequate to make a forecast as to what's going to happen to the market shares.	10:39:39	10 if the presumption is that in the absence of
10:37:41	11	<b>Q. In the but-for world, would the publisher defendants' market share have followed the same trend as it did in the real world?</b>	10:39:43	11 collusion the industry is competitive, then the
10:37:44	12		10:39:45	12 elevation of price due to collusion is the elevation
10:37:47	13		10:39:49	13 from a competitive benchmark to a market in which
10:37:49	14	<b>Q. In the but-for world, would the publisher defendants' market share have followed the same trend as it did in the real world?</b>	10:39:53	14 collectively the colluding entities can exercise
10:37:51	15		10:39:57	15 market power despite the fact that the collusion does
10:37:53	16		10:40:01	16 not include all sellers.
10:37:55	17		10:40:06	17 <b>Q. Is a 50 percent market share sufficient to give parties to a collusive agreement the market power to affect market price?</b>
10:37:56	18	MR. FRIEDMAN: Objection, form.	10:40:09	18 A. That's why it's an empirical
10:37:58	19	THE WITNESS: May or may not. I don't know.	10:40:16	19 question whether a collusive agreement can work, not
10:38:01	20	I haven't done any analysis of that and you can't --	10:40:19	20 a theoretical question.
10:38:04	21	there is no theoretical prediction that is robust.	10:40:23	21 MR. FRIEDMAN: Objection, form.
10:38:07	22	It's an empirical question, and I haven't analyzed it.	10:40:25	22 THE WITNESS: It depends on the nature of the
10:38:08	23	<b>Q. MR. SWANSON: In the but-for world, would the publishers defendants' market shares be proportioned</b>	10:40:30	23 industry that -- if you back out what the merger
10:38:14	24		10:40:36	24 guidelines say about mergers, then that says you
				25 never would want to allow somebody to get to 50 percent through merger. If you look at
				homogeneous product cases, they frequently find that
				market shares in the 50 to 60 percent range are
				insufficient to create power. So it depends on the
				fact of the case. That's why it's an empirical
				question whether a collusive agreement can work, not
				a theoretical question.
			10:41:15	<b>Q. How about a 25 percent market share? Is that ever sufficient?</b>
			10:41:17	A. It could be in a sufficiently product
			10:41:18	differentiated industry, yes. The issue then becomes
			10:41:21	who are the closest competitors to any given person.
			10:41:25	10:41:29 You think about hotdog stands at a beach. Two or
			10:41:33	three guys located next to each other, even though
			10:41:38	they're a small fraction of the market, might be able
			10:41:40	to effectuate a profit-enhancing collusive agreement.
			10:41:45	<b>Q. Do you have an understanding as to whether or not Random House was a part of the conspiracy?</b>
			10:41:47	A. My understanding is that they were not, but
			10:41:51	it's based solely on the opinion and I have no
			10:41:54	

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10:41:56	1	independent view of that. I've never analyzed it.	10:44:38	1	<b>Q. And do you have any opinion, understanding, insight as to whether or not Apple, if it had operated an iBookstore in the but-for world, would have been profitable at the prices that would prevail under your model?</b>		
10:41:59	2	<b>Q. What happened to the market share for sales of Random House titles after the publisher defendants entered into their agency agreements?</b>	10:44:43	2			
10:42:03	3		10:44:49	3			
10:42:07	4		10:44:54	4			
10:42:08	5	MR. FRIEDMAN: Objection, form.	10:44:56	5			
10:42:09	6	THE WITNESS: I haven't done that	10:44:57	6	MR. FRIEDMAN: Objection, form.		
10:42:11	7	calculation. It is not part of my report. Nothing	10:44:58	7	THE WITNESS: I have undertaken no		
10:42:15	8	in my report hinges on what happened to Random	10:44:59	8	independent analysis of the profitability of the		
10:42:18	9	House's market share.	10:45:01	9	iBookstore under either the collusive arrangement or		
10:42:19	10	<b>Q. MR. SWANSON: Is that true of Random House's market share after it entered into an agency agreement itself?</b>	10:45:05	10	the competitive benchmark. I'm simply accepting the		
10:42:21	11		10:45:12	11	opinion of the Court that that issue is irrelevant		
10:42:24	12		10:45:14	12	and that no case has been made that that's a		
10:42:24	13	A. Yes, I have seen such information in data,	10:45:18	13	pro-competitive justification for the collusion.		
10:42:28	14	but it played no role in my report and nothing in my	10:45:20	14	<b>Q. MR. SWANSON: So you're assuming that the Court determined that Apple would be a retailer in the but-for world?</b>		
10:42:31	15	report hinges on that, on those facts.	10:45:23	15			
10:42:34	16	<b>Q. Are you assuming that the publisher defendants' market power would be the same in the but-for world as in the -- in the real world?</b>	10:45:27	16	A. No, I said that the Court determined that		
10:42:39	17		10:45:30	17	that argument was not a pro-competitive -- produced		
10:42:41	18		10:45:37	18	no pro-competitive benefit, that the argument was not		
10:42:45	19	MR. FRIEDMAN: Objection, form.	10:45:41	19	established and so it was rejected by the Court.		
10:42:47	20	THE WITNESS: I -- again, are you talking	10:45:44	21	<b>Q. You're aware from your data, are you not, that Apple sold more than 33 million e-books during the class period?</b>		
10:42:53	21	about collectively if they collude or individually?	10:45:51	22			
10:42:56	22	<b>Q. MR. SWANSON: Let's talk about individually first.</b>	10:45:54	23	A. I was not aware of the precise number, no.		
10:42:57	23		10:45:55	24	And thank you for telling me because I would never		
10:42:58	24	A. I'm assuming that the individual market power	10:45:58	25			
10:43:02	25	of the publishers is unaffected, that, first of all,					
			95				97
10:43:09	1	that they were competitive, so it's an imperfectly	10:46:01	1	have been able to remember.		
10:43:14	2	competitive or monopolistically competitive market.	10:46:02	2	<b>Q. Well, you would have been able to find that number out.</b>		
10:43:18	3	Obviously they don't sell homogeneous	10:46:04	3			
10:43:24	4	products and it's not perfectly competitive. Indeed,	10:46:04	4	A. I would find it out, but I -- you can ask me		
10:43:27	5	a publishing firm couldn't be perfectly competitive	10:46:08	5	questions about how many e-books every single		
10:43:32	6	because of the nature of cost function. But I'm	10:46:10	6	retailer sold, and I'm going to come up with exactly		
10:43:35	7	assuming there is a blanket competition in among the	10:46:13	7	the same lack of precision in my knowledge. Not		
10:43:38	8	publishers.	10:46:17	8	something I've committed to memory.		
10:43:40	9	<b>Q. In the but-for world, would Amazon price Kindle devices at cost, above cost or below cost on average?</b>	10:46:20	9	<b>Q. I understand. What you were telling me a moment ago was that your model assumes that those approximately 33 million e-books would be sold in the but-for world by someone.</b>		
10:43:47	10		10:46:28	10			
10:43:53	11		10:46:31	11	A. That's correct. I have -- the model is about		
10:43:53	12	MR. FRIEDMAN: Objection, form.	10:46:34	12	how much damages -- you can identify damages		
10:43:54	13	THE WITNESS: That's not answerable on a	10:46:36	13	associated with each retailer because the data do		
10:43:56	14	theoretical basis. It's an empirical issue, and I	10:46:39	14	come from each retailer. But if the -- the argument		
10:44:01	15	haven't done an independent analysis to determine	10:46:43	15	that the iBookstore wouldn't exist, in my view, has		
10:44:03	16	what the optimal pricing of Kindles would be.	10:46:46	16	already been rejected as an argument saying it's a		
10:44:07	17	<b>Q. MR. SWANSON: Now, I'm going to make sure I understand something that was touched upon in our earlier discussion. Do you make any assumption about whether or not the iBookstore would exist in the but-for world as part of your work?</b>	10:46:51	17	pro-competitive benefit. So I don't have to worry		
10:44:12	18		10:46:55	18	about it. But implicit in the model is the notion		
10:44:14	19		10:46:59	19	that those would have been sold anyway.		
10:44:19	20		10:47:01	20	<b>Q. If it was determined that some of these 33 million e-book purchases would not have been made but for the iBookstore, would that affect your model?</b>		
10:44:23	21		10:47:05	21			
10:44:24	22	A. There is actually -- the only implicit	10:47:06	22	MR. FRIEDMAN: Objection, form.		
10:44:28	23	assumption in there is that the sales of the	10:47:12	23			
10:44:31	24	iBookstore would have happened somewhere, but whether	10:47:15	24			
10:44:35	25	they would happen there is not part of the model.	10:47:18	25			

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11:11:48	1	say market. I have not examined entry of new	11:14:35	1	were competitive.
11:11:51	2	publishers in any period. There is nothing in my	11:14:36	2	<b>Q. MR. SWANSON: In the but-for world, do you</b>
11:11:55	3	report hinges on that. I haven't addressed the	11:14:41	3	<b>assume that Amazon would have introduced the Kindle</b>
11:11:58	4	economics of entry into the publishing business.	11:14:45	4	<b>app for the iPad?</b>
11:12:03	5	<b>Q. Is it your opinion that the same titles would</b>	11:14:47	5	MR. FRIEDMAN: Objection, form.
11:12:05	6	<b>be released by independent publishers in the but-for</b>	11:14:48	6	THE WITNESS: I make no assumptions about
11:12:08	7	<b>world as in the real world?</b>	11:14:50	7	what anybody would have done with respect to the
11:12:09	8	A. The assumption in the model is that the	11:14:53	8	introduction of any hardware or any software. I'm
11:12:15	9	titles that were offered would have been offered in	11:14:57	9	just simply measuring the price effect in the world
11:12:17	10	any case.	11:14:59	10	that actually happened.
11:12:18	11	<b>Q. And is that true for titles offered by</b>	11:15:01	11	<b>Q. MR. SWANSON: Do you agree -- do you agree</b>
11:12:23	12	<b>self-publishers as well?</b>	11:15:04	12	<b>that the iPad is a revolutionary device that has</b>
11:12:25	13	A. It doesn't matter what they are. They're	11:15:07	13	<b>encouraged innovation and competition?</b>
11:12:27	14	part -- they were released and they were released in	11:15:10	14	MR. FRIEDMAN: Objection, form.
11:12:32	15	a noncollusive environment. So the use of those	11:15:11	15	THE WITNESS: I have no independent analysis
11:12:36	16	prices is as part of the prices that are used to	11:15:12	16	of the merits or demerits of an iPad that went into
11:12:39	17	formulate the competitive benchmark.	11:15:17	17	the construction of my expert report.
11:12:41	18	So the mechanics of how they enter into the	11:15:20	18	<b>Q. MR. SWANSON: Well, did the Court make any</b>
11:12:46	19	damages model doesn't hinge on whether they would	11:15:22	19	<b>findings on that point?</b>
11:12:50	20	have entered anyway because if the world had been	11:15:23	20	A. Yes, the Court did, but I say I have no
11:12:55	21	competitive, then there would be no anticompetitive	11:15:26	21	independent opinion. Everything -- I'm just taking
11:12:58	22	effect on the prices of the colluding publishers. So	11:15:30	22	the Court's opinion as given for all of these issues.
11:13:02	23	they're just data points in this model about a	11:15:33	23	<b>Q. And on that issue as well?</b>
11:13:05	24	competitive benchmark.	11:15:35	24	A. On every issue.
11:13:06	25	<b>Q. You agree that the average prices for</b>	11:15:36	25	<b>Q. Were the Kindle and the iPad competing</b>
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11:13:09	1	<b>publishers who were not part of the conspiracy fell</b>	11:15:42	1	<b>products?</b>
11:13:11	2	<b>after April 1st, 2010?</b>	11:15:42	2	MR. FRIEDMAN: Objection, form.
11:13:13	3	MR. FRIEDMAN: Objection, form.	11:15:44	3	THE WITNESS: Again, I have not undertaken an
11:13:15	4	THE WITNESS: What do you mean by average?	11:15:47	4	analysis of the extent of competition in the market
11:13:17	5	It's true that the -- the average price without	11:15:53	5	for tablet computers, but obviously I believe they
11:13:20	6	taking into effect composition effects fell. But I	11:15:56	6	were competing products, yes.
11:13:26	7	have seen nobody who actually constructed a price	11:15:58	7	<b>Q. MR. SWANSON: Do you think that the</b>
11:13:28	8	index, and I didn't.	11:16:01	8	<b>introduction of the iPad had an effect on the quality</b>
11:13:30	9	So the question would be yes, that's true, if	11:16:05	9	<b>or features of other e-readers that were released</b>
11:13:36	10	you're talking about the unweighted average prices.	11:16:08	10	<b>after the iPad?</b>
11:13:42	11	If you're talking about a price index, I don't know	11:16:09	11	MR. FRIEDMAN: Objection, form.
11:13:44	12	whether it's true or not.	11:16:10	12	THE WITNESS: Again, I've done no independent
11:13:45	13	<b>Q. MR. SWANSON: Are you assuming that all</b>	11:16:12	13	analysis of the market for tablet computers, but
11:13:59	14	<b>e-book prices would have been the same in the but-for</b>	11:16:15	14	obviously technological competition is one of the
11:14:02	15	<b>world as in the real word for publishers outside the</b>	11:16:18	15	features of consumer electronics products, including
11:14:05	16	<b>big six?</b>	11:16:22	16	tablet computers. So each firm's technological
11:14:05	17	MR. FRIEDMAN: Objection, form.	11:16:26	17	innovations lead to a response by other firms.
11:14:06	18	THE WITNESS: The presumption is that the	11:16:29	18	<b>Q. MR. SWANSON: And did the introduction of the</b>
11:14:13	19	competitive benchmark is in fact the prices that were	11:16:31	19	<b>iPad lead other firms making competing products to</b>
11:14:17	20	charged by those entities, among others. If those	11:16:37	20	<b>change their prices for their devices?</b>
11:14:20	21	prices during the collusive period were elevated due	11:16:39	21	MR. FRIEDMAN: Objection, form.
11:14:23	22	to the lack of less intense competition from the	11:16:41	22	THE WITNESS: I have undertaken no
11:14:26	23	members of the conspiracy, then that is -- then those	11:16:43	23	independent analysis of how the introduction of the
11:14:30	24	prices would have in fact been lower. So I have	11:16:46	24	iPad affected the prices for other makers of
11:14:33	25	underestimated damages by the assumption that they	11:16:50	25	e-readers or tablet computers, and it's irrelevant to

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12:06:39	1	<b>Q. Is an unweighted version of the specification one that would lead to unreliable results, in your view?</b>	12:09:38	1	<b>conduct is different from zero, correct?</b>
12:06:46	2		12:09:41	2	A. Yes, whether it's -- whether it is different
12:06:51	3		12:09:45	3	from zero. The legal problem is that's a more likely
12:06:51	4	A. The -- yes. Well, let's put it -- put it	12:09:50	4	than not question, not a statistical significance
12:06:54	5	somewhat differently. Nothing is perfect. All	12:09:53	5	question. But that's why there is a -- there's a
12:06:57	6	right? There's no perfect way to deal with the	12:09:56	6	problem here of using that terminology.
12:07:00	7	problem that we're dealing with.	12:09:58	7	<b>Q. And you understand that you are here not as a juror facing the legal test of more likely than not, but an expert who is supposed to lend expertise in guidance of jurors, correct?</b>
12:07:01	8	It would lead to -- if you examine what the	12:10:01	8	A. Thank you for telling me what my role is,
12:07:05	9	errors are, what the prediction errors are inside the	12:10:07	9	because I never would have guessed that I wasn't a
12:07:09	10	model, the prediction error -- if you do unweighted	12:10:11	10	juror.
12:07:13	11	regression, the prediction errors will be smaller for	12:10:13	11	<b>Q. We might let on you the jury if you promise to be fair.</b>
12:07:16	12	the guys for which sales are very low, and they'll be	12:10:15	12	<b>How are we doing on time?</b>
12:07:19	13	larger for the titles for which sales are large.	12:10:18	13	VIDEOPHOTOGRAPHER: We have about another five
12:07:23	14	And so in terms of the effect on total	12:10:22	14	minutes.
12:07:26	15	revenues and total estimates of damages, when you're	12:10:24	15	MR. SWANSON: Let's do it.
12:07:29	16	trading off precision for things that sell one versus	12:10:27	16	<b>Q. If -- if you get very different results whether you weight or not, doesn't it tell you there's a specification problem with your model?</b>
12:07:33	17	precisions that sell a hundred thousand, it's more	12:10:29	17	A. Objection, form.
12:07:35	18	important to get the hundred thousand guy right, and	12:10:30	18	THE WITNESS: No. That really isn't what
12:07:38	19	that's the reason for doing weighted regressions.	12:10:38	19	it's about. There's always -- if you're -- if you're
12:07:40	20	<b>Q. Are you familiar with the term statistical significance?</b>	12:10:42	20	
12:07:43	21	A. Yes.	12:10:44	21	
12:07:44	22	<b>Q. And -- it's just a foundation question.</b>	12:10:45	22	
12:07:45	23	A. No, I never heard of it before.	12:10:50	23	
12:07:51	24	<b>Q. At least I didn't build it up word by word.</b>			
12:07:53	25				
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12:08:00	1	<b>And you mentioned prediction errors a moment ago. What is the relationship between that concept and the concept of statistical significance?</b>	12:10:54	1	not explaining all of the data, there's a
12:08:05	2		12:10:56	2	specification error unless the world is truly random.
12:08:08	3		12:11:00	3	All right? So, of course, there's a specification
12:08:11	4	A. Well, the statistical significance is a	12:11:02	4	error. There's always a specification error in every
12:08:14	5	summary statistic about the average magnitude of the	12:11:07	5	model, but that's not why results -- that's not
12:08:17	6	prediction errors.	12:11:11	6	only -- that doesn't lead to the conclusion that
12:08:18	7	<b>Q. And are results that are statistically significant more meaningful to you than results that are not?</b>	12:11:14	7	quantity weighting would get a big or a little
12:08:24	8		12:11:16	8	difference, right?
12:08:27	9		12:11:17	9	The quantity weighting is what I told you
12:08:28	10	A. It depends on what you mean. I mean, if	12:11:19	10	about. It's about in a data set which has a very
12:08:34	11	you're using the appropriate concept of statistical	12:11:22	11	large number of observations that don't matter very
12:08:38	12	significance, yes. But -- they are meaningful. But	12:11:25	12	much in terms of what the object of the game is which
12:08:44	13	the standard statistical significance test is not --	12:11:28	13	is to estimate damages. Quantity weighting says
12:08:51	14	that's used in an academic paper isn't really	12:11:30	14	we're going to make certain that the resolution of
12:08:56	15	mapped -- doesn't really map accurately into	12:11:34	15	the precision of estimates is -- goes in the favor of
12:08:59	16	litigation concepts because the -- the issue there is	12:11:38	16	the ones that matter as opposed to ones that don't
12:09:05	17	not necessarily is something statistically	12:11:40	17	matter. That's all that it's about.
12:09:08	18	significant different from zero, but does it add	12:11:43	18	Of course, if you had perfectly specified the
12:09:11	19	explanatory power compared to other variables in the	12:11:46	19	model and had an R squared of 1.0, then it wouldn't
12:09:16	20	equation by having this thing in there, which is a	12:11:50	20	matter what the quantity weight was; but it does
12:09:18	21	sort of different test.	12:11:54	21	matter as long as the model is imperfect. It's
12:09:19	22	But in general we are concerned about	12:11:57	22	extremely likely to matter if the model is not
12:09:21	23	statistical significance, yes.	12:12:00	23	perfect.
12:09:23	24	<b>Q. In offering opinions up about impact, you are offering an opinion that the effect of the challenged</b>	12:12:01	24	Q. MR. SWANSON: Speaking of R squared, earlier
12:09:36	25		12:12:06	25	we had talked about adjusted R squared and within R

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12:12:10	1	<b>squared.</b>	12:59:57	1	VIDEOGRAPHER: This now marks the beginning
12:12:11	2	A. Right.	13:00:11	2	of tape labeled number three of the videotaped
12:12:11	3	<b>Q. Can you tell me what the difference is</b>	13:00:15	3	deposition of Roger Noll. We're now going back on
12:12:15	4	<b>between the two of those, adjusted R squared and</b>	13:00:17	4	the record. The time is 12:59.
12:12:18	5	<b>within R squared?</b>	13:00:19	5	<b>Q. MR. SWANSON: All right. Professor Noll, the</b>
12:12:19	6	A. I don't -- in this model I don't know. I	13:00:22	6	<b>term market concentration is one that economists use,</b>
12:12:22	7	don't remember.	13:00:25	7	<b>correct?</b>
12:12:22	8	<b>Q. Was there a reason why you chose to report</b>	13:00:26	8	A. Yes, although I think these days lawyers use
12:12:25	9	<b>adjusted R squared as opposed to within R squared?</b>	13:00:33	9	it more than economists.
12:12:29	10	A. I -- no, not specific to this case, no. I	13:00:34	10	<b>Q. Entirely possible. What is the relationship</b>
12:12:36	11	just -- I just tend to report adjusted R squared	13:00:37	11	<b>between market concentration and market share?</b>
12:12:39	12	because, you know -- but I didn't think carefully	13:00:39	12	MR. FRIEDMAN: Objection, form.
12:12:42	13	about which one to report.	13:00:41	13	THE WITNESS: The degree of concentration in
12:12:44	14	<b>Q. You would have no objection to disclosing</b>	13:00:48	14	the market is the sum of the market shares of the
12:12:49	15	<b>to the Court or to the jury what your within R</b>	13:00:54	15	firms in the market.
12:12:52	16	<b>squared --</b>	13:00:55	16	<b>Q. MR. SWANSON: Are you familiar with the</b>
12:12:52	17	<b>MR. FRIEDMAN: No.</b>	13:00:56	17	<b>strata -- I'm sorry. Strike that.</b>
12:12:55	18	<b>Q. MR. SWANSON: -- result is.</b>	13:01:01	18	<b>Are you familiar with the Stata command XT</b>
12:12:56	19	MR. FRIEDMAN: No. I'm going to instruct him	13:01:05	19	<b>reg also, I gather, known as XT regress?</b>
12:12:57	20	not to answer that that question. It's not a proper	13:01:10	20	A. Well, it's just a regression. What --
12:13:01	21	question. Instruct you not to answer.	13:01:15	21	<b>Q. Do you know what it does?</b>
12:13:03	22	MR. SWANSON: It's in his results. Are you	13:01:17	22	A. You run a regression. I mean, I...
12:13:04	23	serious? On what basis?	13:01:20	23	<b>Q. And are you familiar with the Stata command A</b>
12:13:06	24	MR. FRIEDMAN: Well, an objection as to	13:01:24	24	<b>reg or A regress?</b>
12:13:09	25	disclosing what's in his result?	13:01:28	25	A. I'm not -- I am not going to define precisely
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12:13:12	1	MR. SWANSON: Yes.	13:01:31	1	what that command means because I don't remember.
12:13:12	2	MR. FRIEDMAN: We don't have an objection to	13:01:33	2	<b>Q. If I asked you what the difference between XT</b>
12:13:13	3	that. That's in his result that you have?	13:01:35	3	<b>reg and A reg is --</b>
12:13:16	4	MR. SWANSON: Yeah, it's not a secret.	13:01:37	4	A. I don't remember.
12:13:18	5	MR. FRIEDMAN: All right. Then I have no	13:01:38	5	<b>Q. You are aware that you use both in your</b>
12:13:19	6	understanding of why you asked that question, but go	13:01:40	6	<b>backup work.</b>
12:13:21	7	ahead.	13:01:42	7	A. The program was not written by me when it was
12:13:22	8	<b>Q. MR. SWANSON: You're the -- the result that</b>	13:01:45	8	written for Stata, and I did not write the program.
12:13:25	9	<b>you've disclosed in your report written in your</b>	13:01:50	9	And so I'm not the one who has to be writing down the
12:13:27	10	<b>narrative report is an adjusted R squared of</b>	13:01:56	10	commands to the computer using Stata.
12:13:31	11	<b>90 percent, correct?</b>	13:01:59	11	<b>Q. You had someone else confirm that that was</b>
12:13:32	12	A. Right.	13:02:01	12	<b>done accurately?</b>
12:13:32	13	<b>Q. Isn't it a fact that the within R squared is</b>	13:02:02	13	A. Yes.
12:13:36	14	<b>12 percent?</b>	13:02:03	14	<b>Q. We've spoken before about within R squared.</b>
12:13:36	15	A. I don't remember what it is. I mean, those	13:02:08	15	A. Right.
12:13:44	16	numbers are for different purposes. All right? And	13:02:09	16	<b>Q. Can you tell me what that is as a statistical</b>
12:13:47	17	I don't remember what the within is. It's not one	13:02:12	17	<b>measure in general terms?</b>
12:13:49	18	that I would have used.	13:02:16	18	A. It's -- the difference between the R squared
12:13:53	19	MR. SWANSON: Why don't we take our break	13:02:21	19	and adjusted R squared for the regression and the
12:13:55	20	now.	13:02:24	20	within thing is as follows. The R squared, an
12:13:56	21	VIDEOGRAPHER: This now marks the end of	13:02:28	21	adjusted R squared for the regression talks about the
12:13:58	22	tape labeled number two, the videotaped deposition of	13:02:32	22	ability to explain the variations in the variable you
12:14:01	23	Roger Noll. We're now going off the record. The	13:02:34	23	actually used, but that variable is then used to
12:14:04	24	time is 12:13.	13:02:37	24	produce -- predict individual transactions prices.
12:14:05	25	(Deposition recess taken.)	13:02:41	25	So that creates a second source of variation, which

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13:02:44	1	is the variation of the -- of the individual		13:05:42	1	horizon I had --	
13:02:46	2	transactions for prices around the predicted price.		13:05:44	2	MR. HUBBARD: Four-week.	
13:02:50	3	And the within is measuring the latter, not the		13:05:45	3	THE WITNESS: Excuse me. Four-week. Yes, it	
13:02:53	4	former.		13:05:47	4	wasn't four months. The aggregation to four weeks	
13:02:53	5	<b>Q. Is the within measuring the extent to which</b>		13:05:49	5	had already been done. So that meant that I didn't	
13:02:58	6	<b>you're accounting for the variation in individual</b>		13:05:52	6	have to construct some other aggregation mechanism	
13:03:00	7	<b>title prices over time?</b>		13:05:54	7	within the time frame I had.	
13:03:03	8	A. Well, it's about the extent to which		13:05:56	8	<b>Q. MR. SWANSON: Did you examine individual</b>	
13:03:08	9	predicting an average in a category predicts the		13:06:01	9	<b>transaction prices at any point?</b>	
13:03:13	10	individual observations in a category.		13:06:04	10	A. Well, the damage calculation is the actual	
13:03:16	11	<b>Q. Let me ask you to turn to page 19 of your</b>		13:06:10	11	price minus the predicted price. So in that sense,	
13:03:23	12	<b>report, Exhibit 1. And let me find it. Oh, I'm</b>		13:06:16	12	yes.	
13:03:38	13	<b>starting from the first sentence of the bottom</b>		13:06:17	13	<b>Q. The -- the actual price --</b>	
13:03:41	14	<b>paragraph where you say: "To make analysis of these</b>		13:06:20	14	A. I guess I don't understand the question.	
13:03:46	15	<b>data more tractable, the weekly data were aggregated</b>		13:06:22	15	Maybe I missed the question. What are you -- what	
13:03:49	16	<b>into four-week periods for use in econometric</b>		13:06:24	16	are you asking me?	
13:03:54	17	<b>estimation."</b>		13:06:25	17	<b>Q. I was asking is there any statistical work</b>	
13:03:55	18	<b>See that? What was intractable about using</b>		13:06:28	18	<b>you've done on -- on --</b>	
13:03:57	19	<b>nonaggregated data?</b>		13:06:31	19	A. Oh, okay.	
13:03:57	20	A. The amount of computer power and time		13:06:31	20	<b>Q. -- individual -- individualized transaction</b>	
13:04:00	21	required to run a regression. That the more		13:06:34	21	<b>data.</b>	
13:04:04	22	observations you have to run the regression on, the		13:06:35	22	A. No, I have not analyzed the individual	
13:04:07	23	more computer power it takes. And you would have to		13:06:37	23	transactions data. Actually, that's not quite true.	
13:04:10	24	have -- well, there's two aspects to the problem.		13:06:47	24	Remember, the -- the method for allocating the	
13:04:19	25	The first is the regression -- the underlying		13:06:51	25	damages among states is based upon assigning	
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13:04:22	1	data, you have to pay attention at the level of		13:06:53	1	individual transactions to a state. So, yes, we've	
13:04:26	2	individual observations to errors to a much greater		13:06:58	2	done that, but we haven't run regressions on	
13:04:29	3	extent. If a very tiny fraction of the observations		13:07:01	3	individual transactions data.	
13:04:33	4	are wrong, you want to clean the data of those before		13:07:02	4	<b>Q. Are the only important characteristics for</b>	
13:04:36	5	you would do any individual level regression, even if		13:07:08	5	<b>pricing an e-book title for any given publisher the</b>	
13:04:40	6	they're a small fraction, because outliers can have a		13:07:13	6	<b>ones for which you've introduced variables into your</b>	
13:04:43	7	huge effect on a regression model.		13:07:18	7	<b>model?</b>	
13:04:46	8	You are much less concerned about a small		13:07:19	8	A. In principle, I could imagine there could be	
13:04:48	9	number of outliers if you are using averages. So you		13:07:22	9	other characteristics. In practice, I don't what I	
13:04:52	10	don't have to devote the same amount of time to		13:07:25	10	would use that I haven't used.	
13:04:54	11	cleaning the data, which can take literally months		13:07:33	11	<b>Q. Would you agree that the transaction data</b>	
13:04:57	12	for a large data set.		13:07:35	12	<b>upon which your model relies includes more genres</b>	
13:04:59	13	And then the second -- the second issue has		13:07:39	13	<b>than the categories you use?</b>	
13:05:01	14	to do with the amount of computer power it takes to		13:07:41	14	A. Yes, remember, we aggregated some into	
13:05:05	15	estimate the regression coefficients when you have		13:07:45	15	puddles. There's the other genre puddle and there's	
13:05:07	16	billions of observations as contrasted to thousands		13:07:48	16	the we don't know what it is puddle.	
13:05:11	17	or hundreds of thousands or something like that. To		13:07:50	17	<b>Q. The Amazon data contained genres such as</b>	
13:05:13	18	do a regression on a huge data set can take linking		13:07:54	18	<b>romance, mystery and thriller, science fiction and</b>	
13:05:18	19	together multiple computers and then running it for		13:07:58	19	<b>fantasy, literature and fiction and sports, correct?</b>	
13:05:21	20	two days to get a single regression result.		13:08:03	20	A. That's correct.	
13:05:25	21	<b>Q. And did you give consideration to using other</b>		13:08:04	21	<b>Q. Did you use those genres as separate</b>	
13:05:29	22	<b>periods of time for your aggregation or averaging of</b>		13:08:07	22	<b>categories in your model?</b>	
13:05:33	23	<b>the price data?</b>		13:08:08	23	A. No.	
13:05:34	24	A. Well, consideration, yes. But the		13:08:09	24	<b>Q. Have you aggregated -- well, I think you've</b>	
13:05:39	25	four-month stuff was already done. So in the time		13:08:17	25	<b>said you've aggregated some different genres into a</b>	

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13:08:22	1	single category or several different categories. Is	13:10:39	1	Q. Do you agree that the standard approach to
13:08:23	2	that -- is that a proper interpretation?	13:10:44	2	proving that collusion raised prices is to construct
13:08:24	3	A. I'm not sure I understand the question.	13:10:48	3	an econometric model of product pricing and taking
13:08:26	4	Q. Okay.	13:10:54	4	into account all of the other factors that affect
13:08:26	5	A. If it's not -- if the answer isn't apparent	13:10:57	5	price including costs, market concentration and
13:08:29	6	from the list of the variables, then I don't	13:10:59	6	market demand, prices were higher due to collusion?
13:08:31	7	understand the question.	13:11:02	7	MR. FRIEDMAN: Objection, form.
13:08:32	8	<b>Q. Well, for example, do you aggregate romance, mystery and science fiction into a broad science fiction category?</b>	13:11:03	8	THE WITNESS: Those are the things taken into
13:08:36	9		13:11:06	9	account, yes.
13:08:40	10		13:11:06	10	<b>Q. MR. SWANSON: Does your regression model take account of costs?</b>
13:08:41	11	A. It would be aggregated into the other category, yes.	13:11:09	11	A. Well, the cost that we're interested in is
13:08:44	12		13:11:10	12	the cost to the retailer, right? Because we're
13:08:44	13	<b>Q. That would be other and not fiction?</b>	13:11:14	13	interested in retail prices. And these, as you know,
13:08:47	14	A. Well, if it's something that can appear on the fiction best seller list, it's in that category.	13:11:17	14	the categories depend on hard cover prices which are
13:08:50	15	If it's not something that can appear in the fiction best seller category, it would be in the other.	13:11:23	15	related to the cost to the retailer.
13:08:54	16		13:11:26	16	So they're indirectly taken into account, but
13:08:57	17		13:11:31	17	what they -- what they actually paid for them is not
13:08:59	18	<b>Q. So that was the basis on which you did that aggregation?</b>	13:11:34	18	actually a variable in the model.
13:09:02	19		13:11:38	19	<b>Q. Does your regression model take account of market concentration?</b>
13:09:03	20	A. Well, the -- yeah, notice that all the categories we have other than children's are	13:11:40	20	A. It does not take into account market
13:09:07	21	associated with the New York Times best seller list.	13:11:43	21	concentration except insofar as that's taken into
13:09:09	22		13:11:44	22	account for the indicator variables for the specific
13:09:13	23	<b>Q. Is it your testimony that the price of two e-books in the same category and produced by the same publisher were impacted in the same manner by the</b>	13:11:48	23	firms because the market concentration would -- the
13:09:19	24		13:11:50	24	
13:09:23	25		13:11:54	25	
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13:09:26	1	<b>change from a wholesale business model to an agency business model?</b>	13:11:57	1	coefficient for Amazon.com, to the extent it differed
13:09:29	2		13:12:01	2	from the coefficient for somebody else, would take
13:09:30	3	MR. FRIEDMAN: Objection, form.	13:12:04	3	account of all the attributes of Amazon, including
13:09:31	4	<b>THE WITNESS: Well, they would have to be. Two titles have the same impact if the values of all the independent variables were identically the same for both of them.</b>	13:12:07	4	market concentration differences.
13:09:33	5		13:12:09	5	<b>Q. Do economists believe that changes in the wholesale prices are relevant to the level of retail prices for the same product?</b>
13:09:37	6		13:12:12	6	
13:09:39	7		13:12:14	7	A. Of course.
13:09:40	8	<b>Q. MR. SWANSON: So if they were in the same category and they were published by the same publisher, what other variables --</b>	13:12:15	8	<b>Q. Are you aware that the defendant publishers had changed wholesale e-book pricing in the preagency period?</b>
13:09:45	9		13:12:16	9	
13:09:50	10		13:12:21	10	
13:09:52	11	A. Sold by the same retailer, status with regard to the New York Times best seller list, observation at the same point in time. All those phenomena would have to be the same. Every single variable that's in the regression would have to take the same value for the two titles.	13:12:25	11	MR. FRIEDMAN: Objection, form.
13:09:55	12		13:12:28	12	THE WITNESS: I'm not sure to what you're
13:09:58	13		13:12:30	13	referring. I mean, prices change, yes, but I don't
13:10:03	14		13:12:34	14	know what you're referring to in the question.
13:10:06	15		13:12:36	15	<b>Q. MR. SWANSON: Are you aware of generally how the defendant publishers priced e-books at wholesale under the wholesale model?</b>
13:10:09	16		13:12:40	16	
13:10:10	17	<b>Q. And to the extent that all those variables did take the same value, then two books would have the same impact, according to your model from the -- from the conduct at issue in the case?</b>	13:12:46	17	MR. FRIEDMAN: Objection, form.
13:10:12	18		13:12:47	18	THE WITNESS: I recall having seen that
13:10:15	19		13:12:49	19	information, but it played no role in how I modeled
13:10:20	20		13:12:50	20	the damages.
13:10:22	21	A. Yes, the R squared of .9 is not 1.0 because	13:12:53	21	<b>Q. MR. SWANSON: In the but-for world, would wholesale prices for e-books be different than in the actual world?</b>
13:10:27	22	there's going to be something out there that isn't in the regression that might have explained that.	13:12:55	22	
13:10:31	23		13:12:59	23	
13:10:33	24	That's the unexplained variance. I don't know what it is, but that would be something.	13:13:01	24	
13:10:35	25				

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13:13:02	1	MR. FRIEDMAN: Objection, form.	13:16:00	1 the level of individual coefficients. I mean, first
13:13:03	2	THE WITNESS: You asked me that this morning,	13:16:04	2 of all, it's not clear what's the appropriate test
13:13:05	3	and one of the features of the agency model was that	13:16:09	3 for statistical significance. All right? And,
13:13:08	4	some prices were reduced at the wholesale level.	13:16:12	4 secondly, the goal is to explain as much of the data
13:13:12	5	<b>Q. MR. SWANSON: And you would not expect to see</b>	13:16:15	5 as possible without including the effect of the
13:13:15	6	<b>that in the but-for world?</b>	13:16:19	6 collusive agreement.
13:13:16	7	A. That's correct.	13:16:19	7 So it's more like how you would do the first
13:13:17	8	<b>Q. Focusing on a single transaction for a single</b>	13:16:24	8 stage of a two-stage least squares model. You want
13:13:33	9	<b>title at a given point in time, how do you identify</b>	13:16:28	9 to do the best job you can of forecasting the
13:13:38	10	<b>the overcharge associated with that single</b>	13:16:31	10 dependent variable with the data you have, and there
13:13:42	11	<b>transaction for that single title?</b>	13:16:34	11 you don't evaluate things on the basis of their
13:13:43	12	A. That's the difference between the price that	13:16:40	12 statistical significance of a coefficient. You
13:13:47	13	was charged for that title in that period versus the	13:16:43	13 evaluate instead the quality of the regression on the
13:13:52	14	competitive benchmark price.	13:16:47	14 basis of the difference by adding the collusion
13:13:54	15	<b>Q. And the actual price that's charged is in</b>	13:16:52	15 indicator.
13:14:03	16	<b>your data?</b>	13:16:54	<b>Q. Well, it's fact, isn't it, that a number of</b>
13:14:04	17	A. Well, the transactions records are actual	13:16:59	<b>your overcharge coefficients are not statistically</b>
13:14:09	18	prices. The data constructs the averages for each	13:17:03	<b>significant?</b>
13:14:14	19	four-week period for each title.	13:17:03	A. I haven't -- I didn't look at that because
13:14:16	20	<b>Q. Is it fair to say that in your regression</b>	13:17:05	that's not the point of a forecasting model. The
13:14:27	21	<b>model you compute 12 overcharge coefficients for each</b>	13:17:09	point of a forecasting model is do the best job of
13:14:33	22	<b>publisher corresponding with the 12 categories we</b>	13:17:13	explaining the noncollusive prices and then add to
13:14:37	23	<b>covered earlier today?</b>	13:17:17	that effect of collusion. And there's all kinds
13:14:38	24	A. There are more than those variables in the	13:17:19	of reasons why you might get specific variables being
13:14:42	25	model. I guess I don't understand the question. All	13:17:22	statistically insignificant but you still would want
		163		165
13:14:45	1	the variables affect the estimated price for every	13:17:26	1 them in the equation because of possible interaction
13:14:48	2	publisher. So I guess I don't understand the	13:17:28	2 with the effect you're measuring.
13:14:50	3	question.	13:17:29	3 So the question is premised on an incorrect
13:14:50	4	<b>Q. Well, you compute overcharge coefficients</b>	13:17:32	4 conceptualization of what the forecasting model is
13:14:54	5	<b>that for each publisher that are associated with each</b>	13:17:36	5 supposed to do and how you construct it.
13:14:57	6	<b>of those 12 categories that we --</b>	13:17:38	<b>Q. Well, if one of your coefficients is not</b>
13:15:01	7	A. Yes.	13:17:44	<b>statistically significant, can you reject the</b>
13:15:01	8	<b>Q. -- spoke of earlier, correct?</b>	13:17:48	<b>hypothesis as an academic economist that purchasers</b>
13:15:03	9	A. Yes, but other variables are still affecting	13:17:49	<b>of e-books in that category were not injured?</b>
13:15:07	10	the price. It's not that those other variables	13:17:54	A. No, because -- not unless the coefficient is
13:15:09	11	disappear in some sense.	13:17:58	not statistically significant. If it -- the only way
13:15:11	12	<b>Q. Did you compute a set of overcharge</b>	13:18:01	you could do that is if the effect of the collusion
13:15:14	13	<b>coefficients for Random House?</b>	13:18:04	period itself were statistically insignificant. And
13:15:17	14	A. Well, somebody's excluded from the data. So	13:18:06	since that interacts with a whole bunch of things,
13:15:24	15	I don't remember precisely which one is. But in any	13:18:06	you can't do it on the basis of each individual
13:15:28	16	case, one could do that calculation with it, yes.	13:18:08	coefficient.
13:15:31	17	You could estimate the departure of the competitive	13:18:09	That's the whole point of a forecasting
13:15:36	18	price from the competitive benchmark price for Random	13:18:11	model. You evaluate on the basis of the equation,
13:15:41	19	House in the data. Yes, you could do that.	13:18:14	not on the basis of a coefficient.
13:15:44	20	<b>Q. But that's not something you've done?</b>	13:18:16	<b>Q. So you would have concerns about statistical</b>
13:15:46	21	A. No.	13:18:20	<b>significance only if all of the coefficients were not</b>
13:15:46	22	<b>Q. Did you evaluate whether all of your</b>	13:18:24	<b>statistically significant?</b>
13:15:50	23	<b>overcharge coefficients were statistically</b>	13:18:25	A. No, you could have that for multiple
13:15:54	24	<b>significant?</b>	13:18:30	collinearity among the data. The question is the
13:15:54	25	A. I don't think that's the relevant question at	13:18:33	equation explaining variance in the object of

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13:18:36	1	interest, which is the dependent variable.	13:21:35	1 <b>was a New York Times best seller title of hard cover</b>
13:18:38	2	So am I explaining the variations in prices	13:21:41	2 <b>advice published by Macmillan that I wasn't injured, correct?</b>
13:18:43	3	at the competitive benchmark versus not is what the	13:21:45	3
13:18:46	4	question is. So you're interested in the -- in the	13:21:45	4 MR. FRIEDMAN: Objection, form.
13:18:50	5	value of the indicator for the collusive period added	13:21:46	5 THE WITNESS: I haven't got that memorized.
13:18:55	6	to the equation.	13:21:48	6 There are specific categories of books for which
13:18:56	7	Now, if the equation weren't explaining	13:21:51	7 there is no anticompetitive effect, yes, but I
13:18:59	8	anything, then there would be no estimated damages	13:21:55	8 don't -- I don't have them memorized. They're listed
13:19:04	9	because everything would be pulling zero weight in	13:21:57	9 in the report, and that's not reasonable for me to
13:19:09	10	explaining differences. So you'd get a zero effect.	13:22:01	10 memorize them.
13:19:12	11	The object of the game is explain the data as	13:22:02	11 <b>Q. MR. SWANSON: Well, there's one in your</b>
13:19:16	12	well as you can without the collusion variable, then	13:22:04	12 <b>report. I'm not making any secrets out of this.</b>
13:19:20	13	add the collusion variable and see if that adds to	13:22:07	13 <b>Your report, Exhibit 1, if you want to turn to it.</b>
13:19:22	14	the significance of the question.	13:22:10	14 A. Yeah. Well, there's actually discussion in
13:19:26	15	<b>Q. So is it your testimony that statistically there is no way to assess whether or not a particular coefficient of the sort that you've reported in Exhibit 1 for a particular publisher for a particular category is econometrically reliable?</b>	13:22:13	15 the main body of this phenomenon. So it's not true
13:19:30	16		13:22:17	16 that I only mentioned one.
13:19:35	17		13:22:23	17 Okay. Where are you?
13:19:38	18		13:22:25	18 <b>Q. I was focusing on the negative --</b>
13:19:41	19		13:22:28	19 MR. FRIEDMAN: Exhibit 1?
13:19:49	20	A. You could -- if there were a hypothesis you	13:22:28	20 <b>Q. MR. SWANSON: -- percentage in Exhibit 1 to</b>
13:19:57	21	wanted to test for which that was the question, then	13:22:32	21 <b>Exhibit 1, negative 38.4 percent.</b>
13:19:59	22	you could use -- then you could answer it using	13:22:40	22 A. Yeah, so?
13:20:02	23	standard diagnostic statistics, but that's not the	13:22:41	23 <b>Q. What does that mean?</b>
13:20:05	24	question being addressed in the model. So it has	13:22:42	24 A. It means that there is a collectivity of
13:20:09	25	nothing to do with whether you're able to predict the	13:22:46	25 coefficients that affect a transactions price, and
		167		
13:20:12	1	<b>effect of the collusive agreement.</b>	13:22:49	1 the Macmillan identifier is negative relative to the
13:20:13	2	Whether you're able to produce the effect of	13:22:51	2 baseline. All right?
13:20:17	3	the collusive agreement depends on the ability to	13:22:53	3 So that means on average Macmillan prices
13:20:19	4	explain the overall price variation, not the power of	13:22:55	4 were lower, adjusting for everything else, than the
13:20:23	5	any specific coefficient.	13:22:59	5 other publishers. That's what it means.
13:20:24	6	<b>Q. Well, doesn't the specific coefficient</b>	13:23:01	6 It doesn't mean that there were no damages
13:20:27	7	<b>determine what a particular member of the class gets</b>	13:23:04	7 associated with Macmillan. It just says that with
13:20:29	8	<b>by way of damage recovery?</b>	13:23:06	8 that particular variable Macmillan is cheaper. Then
13:20:31	9	A. Only insofar as it's interacted with the	13:23:10	9 when you combine it with all the other variables, you
13:20:39	10	collusion variable. The issue is what's the price	13:23:13	10 can get categories in which Macmillan was cheaper
13:20:43	11	they would have been charged, which is the cumulative	13:23:15	11 within holding constant all the other variables, and
13:20:45	12	effect of everything, and then what's the price they	13:23:19	12 that's what the main body of the report mentions, is
13:20:48	13	actually were charged. All right?	13:23:23	13 all the ones where when you take into account
13:20:50	14	That's -- that's what the model is attempting	13:23:28	14 everything a particular category of Macmillan book is
13:20:53	15	to do, and the collusion variable is stuck in there	13:23:30	15 cheaper than the predicted competitive benchmark
13:20:57	16	as an explainer of differences in prices within the	13:23:34	16 price.
13:21:01	17	model, and then you're taking it away and taking it	13:23:35	17 <b>Q. If I am a member of the class and I bought a</b>
13:21:04	18	out to predict the but-for price.	13:23:39	18 <b>book in this category from Macmillan where you have</b>
13:21:07	19	And so what matters is the -- not a	13:23:44	19 <b>your negative 38.4 percent entry, in your opinion,</b>
13:21:11	20	particular coefficient, but the interactions of the	13:23:49	20 <b>was I injured and do I have a right to collect</b>
13:21:15	21	coefficients together, including the collusion	13:23:51	21 <b>damages?</b>
13:21:19	22	coefficient, to produce a prediction of price.	13:23:51	22 A. You can't answer that question by looking at
13:21:21	23	<b>Q. Your model tells us, as you interpret it,</b>	13:23:53	23 one coefficient. That's what the explanation in the
13:21:28	24	<b>does it not, that if I'm a member of the class and</b>	13:23:56	24 main body of the report is. You have to look at the
13:21:31	25	<b>the only e-book I purchased during the class period</b>	13:23:58	25 cumulative effect of all the coefficients for that

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13:28:59	1	<b>times, using Exhibit 1 and Exhibit 2, we can</b>	13:31:14	1
13:29:02	2	<b>calculate my damages --</b>	13:31:16	2
13:29:03	3	MR. FRIEDMAN: Objection, form.	13:31:19	3
13:29:04	4	<b>Q. MR. SWANSON: -- if I tell you what price I</b>	13:31:23	4
13:29:06	5	<b>paid for it?</b>	13:31:24	5
13:29:07	6	MR. FRIEDMAN: Objection, form.	13:31:26	6
13:29:08	7	THE WITNESS: Among other things. I mean, I	13:31:30	7
13:29:11	8	actually have the transaction record. So all I	13:31:34	8
13:29:15	9	actually need to know is your name or your customer	13:31:37	9
13:29:18	10	identification number for all the retailers, and then	13:31:40	10
13:29:23	11	I can go to the database, pluck out every transaction	13:31:41	11
13:29:29	12	you made and calculate the predicted price and the	13:31:44	12
13:29:32	13	actual price for every single e-book you bought and	13:31:48	13
13:29:36	14	it's done.	13:31:50	14
13:29:37	15	<b>Q. MR. SWANSON: If we give Exhibit 1 to</b>	13:31:53	15
13:29:42	16	<b>Exhibit 1 and Exhibit 2 to Exhibit 1 to a neutral</b>	13:31:56	16
13:29:48	17	<b>administrator and class members submit their purchase</b>	13:32:00	17
13:29:51	18	<b>records, will the damage numbers be calculable by</b>	13:32:02	18
13:29:57	19	<b>that independent neutral administrator?</b>	13:32:05	19
13:29:58	20	A. Yes.	13:32:09	20
13:29:59	21	<b>Q. Just from these pages?</b>	13:32:12	21
13:30:01	22	A. From the whole regression equation. This is	13:32:15	22
13:30:04	23	a -- from all the coefficients on all the	13:32:18	23
13:30:07	24	regressions, yes. It's just simply plugging in the	13:32:22	24
13:30:10	25	values. You have the regression equation, which is	13:32:27	25
		175		177
13:30:13	1	just a log linear equation, and it says, you know,	13:32:30	1
13:30:17	2	here are all the independent variables. Take those	13:32:33	2
13:30:22	3	values, put them into the equation and predict a	13:32:34	3
13:30:26	4	price, and that's the but-for price; and the same	13:32:37	4
13:30:30	5	calculation is used for every single transaction.	13:32:39	5
13:30:33	6	So you could actually produce -- go back to	13:32:42	6
13:30:36	7	the transaction records of all the retailers and	13:32:47	7
13:30:38	8	produce a document that was 10,000 pages long which	13:32:48	8
13:30:42	9	is the damages for every single transaction by every	13:32:50	9
13:30:45	10	single e-retailer during the damages period.	13:32:54	10
13:30:48	11	<b>Q. And have you produced that?</b>	13:32:57	11
13:30:50	12	A. No, I haven't done the calculation, but I've	13:33:00	12
13:30:53	13	explained how to do it.	13:33:04	13
13:30:54	14	<b>Q. Are you planning on doing that at some point</b>	13:33:06	14
13:30:56	15	<b>before trial?</b>	13:33:12	15
13:30:57	16	MR. FRIEDMAN: Sorry. Doing what?	13:33:15	16
13:30:59	17	MR. SWANSON: Just what he just described.	13:33:18	17
13:31:01	18	Getting the transaction records, running it through	13:33:27	18
13:31:03	19	his equation, getting the specific damages for each	13:33:30	19
13:31:06	20	member of the class.	13:33:33	20
13:31:06	21	MR. FRIEDMAN: And giving it to an	13:33:37	21
13:31:08	22	administrator for him to do what he says could easily	13:33:40	22
13:31:11	23	be done?	13:33:43	23
13:31:11	24	MR. SWANSON: No, giving it to us so we can	13:33:44	24
13:31:13	25	see it before trial.	13:33:46	25

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13:33:49	1	some examples, yes, but we -- I haven't done -- I	13:36:31	1	MR. FRIEDMAN: Just for the record,
13:33:53	2	haven't done it for every single title every single	13:36:33	2	Mr. Swanson is referring to Exhibit 1 to Exhibit 1.
13:33:56	3	month.	13:36:43	3	THE WITNESS: What happened to panel B?
13:33:56	4	<b>Q. Exhibit 1 to Exhibit 1 is then an</b>	13:36:51	4	<b>Q. MR. SWANSON: It's down here.</b>
13:34:00	5	<b>illustrative or a hypothetical set of coefficients?</b>	13:36:52	5	A. Oh, okay.
13:34:05	6	<b>This does not --</b>	13:36:53	6	<b>Q. It took me a while myself.</b>
13:34:06	7	A. No. No, these are the real thing. There's	13:36:55	7	A. Now, what's the question again?
13:34:09	8	nothing hypothetical about them. This is the result	13:37:05	8	<b>Q. Are these incremental overcharge variables</b>
13:34:11	9	of the regression model, and it's just some of the	13:37:10	9	<b>calculated on a publisher-by-publisher basis?</b>
13:34:15	10	coefficients. That's all. You know what the	13:37:15	10	A. No, these are not on a publisher-by-publisher
13:34:17	11	coefficients are because they're in the backup.	13:37:20	11	basis. The -- these are something that would be true
13:34:19	12	<b>Q. So you could actually -- I mean, do you need</b>	13:37:27	12	for a particular book title, but they would take --
13:34:22	13	<b>to run it through the model? I mean, don't you --</b>	13:37:35	13	they are not inter -- those are not interacted with
13:34:25	14	<b>you don't have the ability to reduce this all to a</b>	13:37:38	14	the publisher variables.
13:34:28	15	<b>formula that can be put on a piece of paper?</b>	13:37:39	15	<b>Q. So these are averages across publishers?</b>
13:34:31	16	A. No, it is a formula. The formula is the	13:37:42	16	A. Well, yes and no. I mean, to some degree the
13:34:34	17	regression. You know this because you've had enough	13:37:45	17	publisher variables are also in the equation. So
13:34:36	18	economics to know it. We have a regression equation	13:37:48	18	some of the variation attributable to these things is
13:34:39	19	and we have estimated the coefficients. It's just an	13:37:51	19	going to be there. These are departures due to this
13:34:42	20	equation.	13:37:55	20	characteristic that are true for all the publishers.
13:34:42	21	It's like, you know, X equals A plus CY. So	13:37:59	21	<b>Q. So you view these each as applying to</b>
13:34:46	22	all you do is you know what A is, you know what C is,	13:38:03	22	<b>multiple publishers?</b>
13:34:52	23	and you know what Y is and you can calculate X. And	13:38:04	23	A. Yes.
13:34:53	24	you put the formula in the computer and you plug in	13:38:05	24	<b>Q. And why didn't you allow these to vary across</b>
13:34:56	25	for any given transaction what the values of the	13:38:09	25	<b>publishers?</b>
		179		181	
13:34:59	1	independent variables are and produce the predicted	13:38:09	1	A. We were getting into the world of serious
13:35:03	2	price.	13:38:14	2	multicollinearity causing the equation to invert the
13:35:03	3	<b>Q. Can you use that methodology to determine</b>	13:38:21	3	matrix of observations with sufficient
13:35:05	4	<b>which members of the class were not injured?</b>	13:38:25	4	multicollinearity.
13:35:07	5	A. That's precisely what we did in the report is	13:38:27	5	<b>Q. Do these incremental overcharge variables</b>
13:35:10	6	identify that fraction for which the predicted price	13:38:30	6	<b>also apply to Random House titles?</b>
13:35:12	7	was -- was greater than the actual price.	13:38:33	7	A. They apply to anything.
13:35:16	8	<b>Q. Well, you haven't looked at individual</b>	13:38:34	8	<b>Q. Does that mean that the price increases</b>
13:35:18	9	<b>transactions, have you?</b>	13:38:37	9	<b>associated with Random House's switch to agency are</b>
13:35:19	10	A. No, we looked at the averages, yes.	13:38:40	10	<b>included in these incremental overcharge variables?</b>
13:35:21	11	<b>Q. Right. So you don't know how many members of</b>	13:38:42	11	A. Well, these variables take values during all
13:35:25	12	<b>the class actually, based on their particular</b>	13:38:46	12	periods depending on the characteristics of the book,
13:35:27	13	<b>purchasing patterns, the time at which they</b>	13:38:49	13	yes.
13:35:30	14	<b>purchased, the titles that they purchased were</b>	13:38:51	14	<b>Q. What percentage overcharge is consistent with</b>
13:35:31	15	<b>actually not injured.</b>	13:39:00	15	<b>a \$9.99 but-for price and \$12.99 actual price?</b>
13:35:34	16	A. Well, the -- we haven't calculated -- again,	13:39:07	16	MR. FRIEDMAN: Objection, form.
13:35:39	17	we have not done the calculation at the level of	13:39:09	17	THE WITNESS: If the question is you
13:35:42	18	individual titles in individual months for every	13:39:15	18	predicted that the price would be \$9.99 and it's \$3.
13:35:44	19	single transaction, no. We've only done it for the	13:39:23	19	<b>Q. MR. SWANSON: And that's a little over</b>
13:35:48	20	averages over the four-week period.	13:39:25	20	<b>30 percent?</b>
13:35:51	21	<b>Q. Do the coefficients in Exhibit 1 apply to --</b>	13:39:25	21	A. Yes.
13:36:04	22	<b>strike that.</b>	13:39:26	22	<b>Q. And if you predicted that the but-for price</b>
13:36:04	23	<b>The four coefficients that you calculate as</b>	13:39:30	23	<b>was 9.99 and the transaction price in the real world</b>
13:36:15	24	<b>reported in panel B on Exhibit 1, have those</b>	13:39:34	24	<b>was 14.99, what -- what is the overcharge percentage</b>
13:36:23	25	<b>calculated on a publisher-by-publisher basis?</b>	13:39:40	25	<b>associated with that scenario?</b>

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13:39:41	1	A. 50 percent.		13:42:04	1	Nothing -- nothing -- the probably of anything being	
13:39:42	2	<b>Q. A little bit over 50?</b>		13:42:07	2	a particular number is not zero, but I don't know	
13:39:44	3	A. Yeah.		13:42:09	3	what it is. I haven't looked at the distribution of	
13:39:45	4	<b>Q. Do any of your formulaic predictions predict</b>		13:42:11	4	predicted prices, so I can't tell you the frequency	
13:39:52	5	<b>precisely 9.99 but-for pricing?</b>		13:42:13	5	of various prices.	
13:39:57	6	A. I don't recall what the precise predictions		13:42:15	6	<b>Q. Well, you just told me something that</b>	
13:40:02	7	for anything are. Don't remember. I, you know, I		13:42:17	7	<b>somewhat belied the fact that you didn't know</b>	
13:40:09	8	don't recall what those numbers are.		13:42:20	8	<b>anything. Now --</b>	
13:40:10	9	<b>Q. Is it your view that the scenario of a 9.99</b>		13:42:21	9	MR. FRIEDMAN: Objection, form.	
13:40:16	10	<b>but-for price and a 12.99 actual price is a very</b>		13:42:22	10	<b>Q. MR. SWANSON: How likely is it that the</b>	
13:40:20	11	<b>common one as the plaintiffs' damage expert?</b>		13:42:24	11	<b>number of prices that your model predicts in the</b>	
13:40:26	12	MR. FRIEDMAN: Objection, form.		13:42:29	12	<b>but-for world are in less than five percent of the</b>	
13:40:27	13	THE WITNESS: What do you mean by common?		13:42:35	13	<b>instances 9.99?</b>	
13:40:30	14	<b>Q. MR. SWANSON: Do you think that was the most</b>		13:42:38	14	MR. FRIEDMAN: Objection, form.	
13:40:32	15	<b>common instance of overcharge?</b>		13:42:39	15	THE WITNESS: I haven't -- I haven't	
13:40:34	16	MR. FRIEDMAN: Objection, form.		13:42:42	16	calculated that number. I don't -- I don't know.	
13:40:36	17	THE WITNESS: I don't know whether it was the		13:42:44	17	<b>Q. MR. SWANSON: If your model predicted only</b>	
13:40:37	18	most common. I mean, to begin with, the prices		13:42:47	18	<b>one percent of the prices in the but-for world were</b>	
13:40:40	19	you're quoting are for new releases. They're less		13:42:51	19	<b>9.99, would that cause you to reexamine the</b>	
13:40:43	20	than half of the transactions. And then there are		13:42:53	20	<b>reliability of your model?</b>	
13:40:45	21	differences in the prices of new releases. So I		13:42:54	21	A. No.	
13:40:48	22	don't know how to characterize most or more common.		13:42:55	22	MR. FRIEDMAN: Objection, form.	
13:40:54	23	Those are too vague for me.		13:42:56	23	THE WITNESS: Not necessarily. I'd have to	
13:40:56	24	<b>Q. MR. SWANSON: Are these overcharge scenarios</b>		13:42:58	24	know a lot more.	
13:40:58	25	<b>that are common at all, in your view?</b>		13:42:58	25	<b>Q. MR. SWANSON: Zero percent? What if it were</b>	
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13:40:59	1	MR. FRIEDMAN: Objection, form.		13:43:01	1	<b>zero percent?</b>	
13:41:00	2	THE WITNESS: You have to be more precise		13:43:01	2	A. No, that's not -- that's not a valid measure	
13:41:04	3	about what common means. I mean, there are some that		13:43:04	3	of reliability. All right? The issue is not that.	
13:41:06	4	happen more often than others, but I don't know what		13:43:07	4	The issue is the extent to which it's doing a good	
13:41:09	5	you mean by common.		13:43:12	5	job predicting the overcharge.	
13:41:09	6	<b>Q. MR. SWANSON: Well, what percentage of</b>		13:43:15	6	It could be, you know, small differences in	
13:41:11	7	<b>but-for pricing as predicted by your damage model are</b>		13:43:18	7	the predicted but-for price. Like, suppose we got	
13:41:18	8	<b>\$9.99?</b>		13:43:22	8	every single one of them that should have been 9.99	
13:41:19	9	A. I don't know what percentage of them are. I		13:43:26	9	as 9.98. That's not important. All right? If every	
13:41:23	10	don't regard it as an important question, but I don't		13:43:30	10	single one that was supposed to be 9.99 was \$2.36,	
13:41:25	11	know what they are.		13:43:35	11	then that would be important, or if it was \$27.14,	
13:41:25	12	<b>Q. Is it less than ten percent?</b>		13:43:39	12	that would be important. But just knowing what	
13:41:27	13	A. Is there something about I don't know you		13:43:41	13	fraction of them was exactly 9.99 is not relevant to	
13:41:29	14	don't understand?		13:43:45	14	any known or suspected question that I would have	
13:41:30	15	<b>Q. Is there something about I'm a lawyer that</b>		13:43:48	15	about the quality of the model.	
13:41:33	16	<b>you don't understand?</b>		13:43:50	16	<b>Q. So absolutely unimportant to you what</b>	
13:41:34	17	A. I'm not going to give a Clinton-esque		13:43:52	17	<b>percentage are 9.99.</b>	
13:41:40	18	definition of I don't know. I'm just going to say I		13:43:53	18	MR. FRIEDMAN: Objection, form.	
13:41:42	19	don't know.		13:43:54	19	THE WITNESS: I don't know why I would care	
13:41:42	20	<b>Q. Well, I don't know, in my sad experience as a</b>		13:43:56	20	to know the percentage of them that predicted 9.99,	
13:41:50	21	<b>lawyer, sometimes gets qualified when the numbers get</b>		13:44:00	21	yes. I can't think of a good reason to do that. You	
13:41:54	22	<b>bandied about.</b>		13:44:04	22	could do it, but I don't know what the point would	
13:41:55	23	<b>So you don't know if it's zero percent.</b>		13:44:07	23	be.	
13:41:58	24	A. Oh, it would be extremely unlikely to be		13:44:07	24	<b>Q. MR. SWANSON: Would your answers be different</b>	
13:42:01	25	zero percent, but I don't know what it is.		13:44:08	25	<b>if I asked you the same questions but specified a</b>	

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13:44:10	1	<b>range of from, say, 9.75 to 10.25?</b>	13:47:10	1 representative. Like the 90-day expiration date, all
13:44:15	2	A. That comes closer to being something that	13:47:14	2 right, can happen after two weeks of the four weeks.
13:44:19	3	matters, yes. I mean, but you're leaving out the	13:47:17	3 So what you're reducing is the power of that variable
13:44:22	4	other shoe, which is what actually was the category	13:47:20	4 to explain variation in price.
13:44:26	5	of the book that's not being 9.99. Is it one that	13:47:23	5 <b>Q. Suppose a consumer comes forward and presents</b>
13:44:30	6	you really should have predicted in the, say, the	13:47:32	6 <b>evidence that in the middle of the book -- in the</b>
13:44:35	7	Amazon data prior to the institution of the agency	13:47:36	7 <b>middle of the month they bought a book that was --</b>
13:44:39	8	problem model.	13:47:45	8 <b>had just come off its 90-day period, new release that</b>
13:44:40	9	If you haven't done a good job of identifying	13:47:50	9 <b>had just come off its 90-day period. Typically</b>
13:44:43	10	the books they would have set the price at 9.99, then	13:47:55	10 <b>coming off the 90-day period for Amazon would result</b>
13:44:48	11	that's important; but if that's true, then I don't	13:47:58	11 <b>in a higher e-book price, would it not?</b>
13:44:50	12	know how you get an R square of .90.	13:48:01	12 A. Typically, yes.
13:44:55	13	So, you know, it's -- the question has to be	13:48:02	13 <b>Q. And the approach of your model will use data</b>
13:44:58	14	answered in the context of a regression that's	13:48:07	14 <b>based on averaging all of the transactions in that</b>
13:45:01	15	explaining 90 percent of the variance, and the	13:48:09	15 <b>month, correct?</b>
13:45:04	16	average prices for the books that were 9.99 is going	13:48:10	16 A. That's correct.
13:45:08	17	to be 9.99. So if you're not explaining that, I	13:48:11	17 <b>Q. So as you just pointed out, it could be that</b>
13:45:12	18	don't know how get an R square of .90 if they	13:48:16	18 <b>two weeks in the price might have gone up under the</b>
13:45:15	19	constitute more than a trivial fraction of the sales.	13:48:20	19 <b>Amazon pricing model, but your model will treat the</b>
13:45:19	20	<b>Q. What happens when you get a within R squared of .12? What does that tell you?</b>	13:48:25	20 <b>average price of that book throughout the month which</b>
13:45:26	21	A. What that's telling me is that within a	13:48:28	21 <b>will give weight to the lower price before the price</b>
13:45:28	22	month-long period, there's lots of variation in price	13:48:34	22 <b>hike kicks in.</b>
13:45:30	23	around the average price; and, of course, you're not	13:48:36	23 A. It will give weight to both, but the average
13:45:34	24	explaining it because you're not dealing -- you don't	13:48:39	24 will be in between. So those who bought before the
13:45:37	25		13:48:43	25 change occurred, their damages will be
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13:45:40	1	have a transactions model.	13:48:46	1 underestimated; and for ones that bought after, their
13:45:41	2	If you did estimate a transactions model with	13:48:49	2 damages will be overestimated. But on average,
13:45:46	3	even the same variables, your ability to explain	13:48:51	3 they'll cancel out.
13:45:49	4	individual transactions would be better than that,	13:48:53	4 <b>Q. And some consumers who will not have been</b>
13:45:52	5	because you're just not -- you're not giving the	13:48:59	5 <b>injured directly under your methodology as a result</b>
13:45:55	6	model the chance to even try to explain those because	13:49:01	6 <b>of that be in line to collect damages, correct?</b>
13:45:58	7	that's not the input to the model.	13:49:04	7 MR. FRIEDMAN: Objection, form.
13:46:00	8	<b>Q. Well, do people purchase at average prices or do they purchase at actual individual prices --</b>	13:49:05	8 THE WITNESS: Well, that -- that's only true
13:46:06	9		13:49:08	9 if the predicted price in the next four-week period
13:46:09	10	MR. FRIEDMAN: Objection, form.	13:49:11	10 would have been at or above the price they actually
13:46:10	11	<b>Q. MR. SWANSON: -- at a given point in time?</b>	13:49:14	11 paid. Because, you know, in the next period, nothing
13:46:12	12	A. Well, some do, some don't. The -- the range	13:49:20	12 else will have changed except now we have the full
13:46:16	13	of prices being charged obviously is not something	13:49:22	13 effect of the post 90-day thing. So you're going to
13:46:21	14	where every single price is right at the average.	13:49:25	14 have a different predicted price there. And they are
13:46:24	15	Most of them are not at the average or else you	13:49:29	15 going to have zero damages as opposed to what they
13:46:27	16	wouldn't have the variation that you do within --	13:49:33	16 get only if in that period you would have predicted
13:46:31	17	within the four-month period.	13:49:36	17 no anticompetitive harm for that category, and yet in
13:46:33	18	MR. FRIEDMAN: Four-week.	13:49:42	18 reality what the model is about is saying that there
13:46:34	19	THE WITNESS: Four-week period. Excuse me.	13:49:45	19 will be anticompetitive harm for everybody. It just
13:46:36	20	<b>Q. MR. SWANSON: Are there e-book prices that</b>	13:49:48	20 will differ depending whether you're before 90 days
13:46:56	21	<b>predictably change within a four-week period that</b>	13:49:51	21 or after 90 days.
13:46:59	22	<b>your model is not taking account of?</b>	13:49:53	22 <b>Q. Are you planning on taking that into account</b>
13:47:01	23	A. Well, to the extent that indicator variable	13:49:55	23 <b>or can you take that into account?</b>
13:47:04	24	changes its stripe in the middle of the period, then,	13:49:57	24 A. The way to take it into account, which would
13:47:08	25	you know, there's a -- it's not completely	13:50:02	25 require more work, a lot more time, would be to

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13:50:05	1	reduce the -- the time period for which the average	13:52:49	1	for you the 10,000-page computer dump of the but-for
13:50:09	2	was taken down to a week or something like that, down	13:52:55	2	price of every title in every month, then you could
13:50:13	3	to something closer to the frequency of the changes	13:52:59	3	just look at that and do it yourself.
13:50:16	4	in the variables.	13:53:01	4	<b>Q. Well, you've answered my question. I appreciate that.</b>
13:50:17	5	<b>Q. And that is something that you could do.</b>	13:53:03	5	
13:50:28	6	A. It's something you can do with enough time,	13:53:05	6	A. Shall we take a break?
13:50:30	7	sure. You have to reconstitute the aggregation of	13:53:06	7	MR. SWANSON: Yeah.
13:50:35	8	the data. Rather than just rely on stuff that was	13:53:07	8	VIDEOGRAPHER: We are now going off the
13:50:37	9	done in the liability phase, you'd have to actually	13:53:09	9	record, the time is 1:52.
13:50:41	10	go back and reconstitute the aggregation from the	14:16:07	10	(Deposition recess taken.)
13:50:44	11	transactions record to average periods and do that.	14:16:07	11	VIDEOGRAPHER: We're now going back on the
13:50:47	12	MR. FRIEDMAN: Would you like to have us	14:16:19	12	record. The time is 2:15.
13:50:48	13	incur that cost in the distribution phase? Just give	14:16:22	13	<b>Q. MR. SWANSON: Professor Noll, you state in your report that:</b>
13:50:52	14	me a heads-up.	14:16:25	14	<b>"Anticompetitive conduct by the defendants caused prices to be higher for e-books that account for 99.5% of e-book sales by the publisher defendants."</b>
13:50:56	15	MR. SWANSON: I don't know what phase you get	14:16:27	15	<b>Do you recall that?</b>
13:50:58	16	to unless you meet the requirement of moving	14:16:28	16	A. Yes.
13:51:01	17	something up. But we can debate that offline.	14:16:30	17	<b>Q. How did you compute the 99.5 percent figure?</b>
13:51:08	18	<b>Q. Sitting here right now, obviously you don't have your computer, nor would Mr. Friedman allow me</b>	14:16:36	18	A. It's a fraction that are accounted for by the
13:51:14	19	<b>to make you run some calculations here live, but if I gave you some hypothetical information about a particular consumer purchasing on a particular day, all of the information that corresponds to the variables that you've used, would you be able to figure out how your methodology calculates the</b>	14:16:40	19	actual price being above the predicted price.
13:51:19	20		14:16:40	20	<b>Q. And did you make that computation at the level of individual transactions?</b>
13:51:23	21		14:16:40	21	
13:51:25	22		14:16:44	22	
13:51:29	23		14:16:49	23	
13:51:33	24		14:16:51	24	
13:51:35	25		14:16:54	25	
		191			193
13:51:39	1	<b>overcharge for that consumer as you sit here without using your computer?</b>	14:16:56	1	A. At the level of the four-week periods.
13:51:42	2		14:17:00	2	<b>Q. And did you make that computation at the level of the individual title?</b>
13:51:43	3	A. I have no idea until you ask the question	14:17:04	3	A. It would be the -- let's see. What did we do.
13:51:46	4	because the question was sufficiently vague that I'm	14:17:06	4	I've just forgotten sitting here whether it
13:51:48	5	not sure what's coming. So I'd hate to answer yes	14:17:15	5	was at the title or category level. I think it was -- I just don't remember for sure.
13:51:52	6	and then not be able to answer the question or no and	14:17:16	6	<b>Q. Let me assert that it was at the category level.</b>
13:51:56	7	then be able to answer it. So maybe you should try	14:17:27	7	A. I think it was, but I'm just having a main
13:51:58	8	and I can tell you whether that's sufficient	14:17:30	8	memory block. I don't remember for sure.
13:52:00	9	information for me to be able to answer it.	14:17:32	9	<b>Q. And if you calculated it at the category level, in effect, what you did was compute the average price effect within a category, and then to the extent there was a price effect, you added up the percentage of each of those categories to come up with a 99.5 percent figure?</b>
13:52:02	10	<b>Q. Well, I mean, if I bought Ted Kennedy's book True Compass on April 1st, 2010, and I bought it from Apple, could you tell me what my -- how much I was overcharged?</b>	14:17:35	10	A. I think that the 99.5 percent figure is based
13:52:07	11		14:17:35	11	on the volume of sales, as I remember, as opposed to
13:52:10	12		14:17:39	12	a count of categories. You said a count of
13:52:15	13		14:17:40	13	categories, and I don't think it was.
13:52:15	14	A. Yes.	14:17:44	14	<b>Q. I agree it's not a count of categories.</b>
13:52:16	15	<b>Q. How much?</b>	14:17:47	15	A. Right.
13:52:17	16	A. By plugging in the values associated with	14:17:51	16	<b>Q. I was not being very precise. I think we're</b>
13:52:21	17	that title into the regression equation, producing a	14:17:55	17	
13:52:25	18	but-for price and then subtracting that from the	14:17:59	18	
13:52:28	19	price you actually paid.	14:18:01	19	
13:52:29	20	<b>Q. If I told you what price hypothetically I paid for that book, can you sitting here point me to numbers in your report that would allow us to figure that out? Or do you need a computer to do that?</b>	14:18:10	20	
13:52:33	21		14:18:13	21	
13:52:35	22		14:18:15	22	
13:52:38	23		14:18:16	23	
13:52:41	24	A. Depends. There's nothing in the report that would enable you to calculate it, but if I produce	14:18:19	24	
13:52:46	25		14:18:20	25	

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14:18:23	1	on the same page, but we should be on the same page	14:20:49	1 A. No, I think that is an implausibly low
14:18:25	2	on the record.	14:20:55	2 number, yes. The only categories in which you would
14:18:26	3	You determined whether or not a category was	14:20:58	3 find that would be true would be ones where the
14:18:29	4	affected. If it was, according to your model, then	14:21:01	4 predicted price is very close to but still below the
14:18:31	5	you added its share of sales --	14:21:04	5 average price.
14:18:34	6	A. Right.	14:21:05	6 Q. What do you think is the more reasonable
14:18:35	7	Q. -- to all the other categories that your	14:21:08	7 estimate of the number of impacted titles?
14:18:37	8	model indicated was affected, and that came up to a	14:21:11	8 A. I don't know what it would be. There could
14:18:41	9	99.5 percent share of sales, right?	14:21:13	9 be a category for which that number is true, but I
14:18:45	10	A. Correct. The calculated damages in my model	14:21:17	10 think it's extremely unlikely it's true for all
14:18:48	11	are positive for 99.5 percent of the volume of	14:21:20	11 categories or even most categories.
14:18:53	12	transactions, yes.	14:21:22	12 Q. And is it possible that the 99.5 figure is
14:18:55	13	Q. Now, that could be consistent with calculated	14:21:25	13 consistent with an impact in only 50 percent of
14:19:04	14	impact on 40 percent of titles, could it not?	14:21:29	14 individual transactions?
14:19:11	15	MR. FRIEDMAN: Objection, form.	14:21:31	15 A. I do not think that's true. I think that's
14:19:13	16	THE WITNESS: I don't -- I think that's	14:21:34	16 unlikely to be the case, but we can calculate and
14:19:18	17	extremely implausible, no. I mean, the -- there are	14:21:37	17 figure it out. I mean, that's a task that can easily
14:19:24	18	circumstances in which it could be a significant	14:21:41	18 be done with a regression equation.
14:19:26	19	fraction of the titles in the category, but those	14:21:42	19 Q. Do you have the information that would allow
14:19:28	20	would be where the predicted price is very close to	14:21:45	20 you to do that?
14:19:31	21	the average price. If there's a big difference,	14:21:46	21 A. Of course.
14:19:33	22	there wouldn't -- it wouldn't be -- it wouldn't be	14:21:46	22 Q. You would be able to determine the individual
14:19:37	23	any significant fraction where the predicted price	14:21:52	23 transactional histories of members of the class?
14:19:40	24	was above the actual price.	14:21:55	24 A. We have the transaction records of everybody
14:19:41	25	Q. MR. SWANSON: So you do have an opinion as to	14:21:57	25 in the class, and all we would do is take a sample of
		195		197
14:19:43	1	what percentage of titles were impacted?	14:22:02	1 transactions records and predict the prices of
14:19:45	2	MR. FRIEDMAN: Objection, form.	14:22:05	2 everything on that list, compare it with the actual
14:19:46	3	THE WITNESS: No, I don't know what	14:22:08	3 price in the transactions records and see how many of
14:19:47	4	percentage were, but I'm saying the hypothesis you	14:22:10	4 them are positive.
14:19:52	5	put forth would not be -- that wouldn't be a good	14:22:11	5 Q. But you didn't do that.
14:19:55	6	estimate.	14:22:13	6 A. I haven't done that, no. I've given
14:19:56	7	Q. MR. SWANSON: You don't think it's as low as	14:22:16	7 illustrations of how you do the calculation, but I
14:19:59	8	40 percent?	14:22:20	8 haven't attempted to calculate for all transactions
14:19:59	9	A. Well, 40 percent, as I understand it, was the	14:22:25	9 for a sample of class members.
14:20:04	10	number that you thought the damages would be negative	14:22:27	10 Q. Could you turn to page 12 of your expert
14:20:07	11	when in fact they were calculated as positive, and I	14:22:31	11 report? And I wanted to ask you about something in
14:20:10	12	don't think it would be that high. All right?	14:22:38	12 the first paragraph. Actually, toward the end of the
14:20:13	13	Wasn't 40 percent that I had incorrectly	14:22:42	13 first paragraph you're talking about a wealth
14:20:16	14	identified as having positive damages?	14:22:46	14 transfer and at the end you say:
14:20:18	15	Q. We may be talking past each other here.	14:22:47	15 "The wealth transfer is the sum over all
14:20:21	16	A. Okay.	14:22:51	16 e-book titles and all days for which the
14:20:22	17	Q. I'm sure it's my fault. My question for you	14:22:53	17 collusive agency model was in place, but the
14:20:25	18	is you have a 99.5 percent of affected sales figure	14:22:55	18 quantity sold multiplied by the elevation in
14:20:30	19	that you've been reporting --	14:22:57	19 price on that day is the collusive agency
14:20:32	20	A. Yes.	14:22:59	20 model."
14:20:32	21	Q. -- in your report. And my question was is it	14:23:01	21 What are you referring to there?
14:20:35	22	consistent with that number that you've reported that	14:23:02	22 A. I'm trying to figure out why it isn't clear.
14:20:41	23	at the same time perhaps only as low as 40 percent of	14:23:13	23 For any given e-book title, we have a number of
14:20:44	24	the publisher defendant titles were positively	14:23:15	24 transactions and we just sum the difference between
14:20:49	25	impacted?	14:23:19	25 the actual price and the but-for price for every

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14:34:23	1	other extraneous information and calculate the		14:36:55	1	But I haven't attempted -- I don't know of	
14:34:27	2	equilibrium markup before and after the		14:36:59	2	any independent source of information about coupons.	
14:34:28	3	anticompetitive conduct.		14:37:02	3	<b>Q. Professor, if an individual consumer received</b>	
14:34:29	4	That doesn't require the use of econometrics		14:37:07	4	<b>benefits that he or she would not have received in</b>	
14:34:32	5	except insofar as you need it to produce numbers that		14:37:11	5	<b>the but-for world, how do you treat those benefits in</b>	
14:34:36	6	are the parameters of the model.		14:37:14	6	<b>your damage calculation?</b>	
14:34:38	7	In this case, I don't know how I would do		14:37:15	7	MR. FRIEDMAN: Objection, form.	
14:34:42	8	that without information about the but-for price. I		14:37:16	8	THE WITNESS: Since I don't know what you	
14:34:44	9	mean, I don't get yet how I would do that without		14:37:17	9	mean by benefits, I can't answer the question. I	
14:34:48	10	information about the but-for price.		14:37:20	10	don't know what you're even talking about.	
14:34:51	11	But that modeling exercise of creating a		14:37:21	11	<b>Q. MR. SWANSON: Well, if -- speaking generally</b>	
14:34:54	12	theoretical model of imperfect competition has been		14:37:26	12	<b>of damage calculation, if a challenged conduct gives</b>	
14:34:59	13	used on occasion. I've seen it used maybe twice, but		14:37:29	13	<b>rise to both harm and benefits, when you quantify</b>	
14:35:03	14	as you can well imagine, an economist who does that		14:37:33	14	<b>damages as a damage expert, do you take account in</b>	
14:35:05	15	is in deep trouble because he's got to defend a		14:37:38	15	<b>any way of the benefits?</b>	
14:35:09	16	particular model of imperfect competition, and we can		14:37:40	16	MR. FRIEDMAN: Objection, form.	
14:35:13	17	think of about a hundred alternatives to any model		14:37:41	17	THE WITNESS: It depends on the circumstances	
14:35:20	18	you want to come up with. So all you're going --		14:37:44	18	where the benefits accrued, but in general in this	
14:35:21	19	both sides are just going to be paying a lot of money		14:37:47	19	case I relied upon the opinion of the Court that	
14:35:25	20	to economists if you take that approach.		14:37:50	20	there were no pro-competitive benefits. So, of	
14:35:27	21	<b>Q. We can't have that. It's been done.</b>		14:37:53	21	course, I'm not taking into account things that the	
14:35:30	22	<b>Is it -- do you have any empirical view on</b>		14:37:56	22	Court has said don't exist.	
14:35:39	23	<b>whether two different customers normally pay the same</b>		14:37:57	23	<b>Q. MR. SWANSON: If your interpretation or</b>	
14:35:43	24	<b>price for the same e-book at the same retailer on the</b>		14:38:01	24	<b>counsel's interpretation of the significance of</b>	
14:35:47	25	<b>same day, focusing on the class period?</b>		14:38:04	25	<b>whatever court findings that you're pointing to is</b>	
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14:35:50	1	MR. FRIEDMAN: Objection, form, asked and		14:38:07	1	incorrect and the issue is presented to a jury for	
14:35:51	2	answered.		14:38:10	2	decision and the jury finds there were	
14:35:51	3	THE WITNESS: I haven't studied that problem,		14:38:12	3	pro-competitive benefits, how do you handle those as	
14:35:53	4	and I have no opinion about it based on anything I've		14:38:15	4	a damage expert?	
14:35:56	5	done in this case.		14:38:16	5	MR. FRIEDMAN: Objection, form.	
14:35:57	6	<b>Q. MR. SWANSON: Do some consumers use coupons</b>		14:38:18	6	THE WITNESS: Well, if this were a case in	
14:36:02	7	<b>or have discounts or rebates on their e-book</b>		14:38:21	7	which pro-competitive benefits were found to exist,	
14:36:05	8	<b>purchases?</b>		14:38:24	8	then you would have to attempt to include them in the	
14:36:06	9	MR. FRIEDMAN: Objection, form, asked and		14:38:26	9	model of damages to the extent they occurred to the	
14:36:07	10	answered.		14:38:29	10	same people who were damaged by the conspiracy.	
14:36:07	11	THE WITNESS: That sounds like a statement,		14:38:31	11	<b>Q. MR. SWANSON: And would you calculate net</b>	
14:36:09	12	not a question.		14:38:36	12	<b>damages, in other words, net of pro-competitive</b>	
14:36:10	13	<b>Q. MR. SWANSON: No, it's a question. It's a</b>		14:38:40	13	<b>benefits?</b>	
14:36:15	14	<b>question I hope you know the answer to.</b>		14:38:40	14	MR. FRIEDMAN: Objection, form.	
14:36:17	15	A. Do some people -- I know that Amazon does in		14:38:42	15	THE WITNESS: As an economist, I don't think	
14:36:20	16	fact have coupons. The extent to which they use them		14:38:43	16	I'm entitled to an opinion about a legal conclusion	
14:36:23	17	for e-books I don't know and I haven't studied and		14:38:46	17	about which benefits should be counted as offsetting	
14:36:26	18	it's not part of my opinion in this case.		14:38:49	18	versus not. I would do whatever I was told in terms	
14:36:29	19	<b>Q. Do you have the data that allow you to adjust</b>		14:38:52	19	of the legal opinion because it's not up to me. I	
14:36:34	20	<b>the Amazon prices for any coupons or discounts or</b>		14:38:56	20	mean, it's not up to me to make that judgment about	
14:36:38	21	<b>rebates that were provided on any of the --</b>		14:39:02	21	the -- what the pro-competitive benefits are and	
14:36:42	22	A. If it's -- if it's in the transactions		14:39:05	22	which ones are offset against damages.	
14:36:45	23	prices, it's there in part of the average. Yes. I		14:39:11	23	MR. SWANSON: I'm going to move to on	
14:36:49	24	mean, the average is the actual average of the actual		14:39:15	24	Exhibit 5, which is three pages.	
14:36:52	25	transaction prices. So it's in there.		14:39:33	25	///	

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14:45:22	1	have entered into settlement agreements with	14:48:13	1 class members were harmed by paying higher prices for
14:45:25	2	plaintiffs that provide for monetary payments to	14:48:17	2 e-books than they would have paid absent the agency
14:45:30	3	certain consumers who purchased their e-books between	14:48:20	3 agreements?
14:45:35	4	April 1st, 2010, and May 21st, 2012?	14:48:20	4 A. The existence of higher prices for all
14:45:37	5	MR. FRIEDMAN: Objection, form.	14:48:25	5 e-books harm all class members, yes, but it doesn't
14:45:39	6	THE WITNESS: I'm aware of the existence of	14:48:30	6 mean they actually -- it could -- the mechanism by
14:45:41	7	the settlement agreement. I do not know the details	14:48:34	7 which that's true isn't necessarily just the
14:45:44	8	of the settlement agreement.	14:48:36	8 purchases. It's also the dead-weight loss and also
14:45:46	9	Q. MR. SWANSON: Let's go back actually to the	14:48:42	9 the other effects that arose from this.
14:45:48	10	hypothetical -- third hypothetical we were just	14:48:44	10 Q. So there are class members -- withdraw that.
14:45:52	11	talking about, the consumer who buys two books and	14:48:48	11 You entertain the possibility that there are
14:45:55	12	only two books.	14:48:51	12 class members who paid no overcharges but who
14:45:59	13	If that consumer has received a settlement	14:48:55	13 experienced dead-weight loss?
14:46:05	14	payment in this litigation of \$3, do you calculate	14:48:56	14 A. Well, I don't anticipate there are such
14:46:12	15	any damages for purposes of the upcoming damage	14:49:00	15 people, but I'm saying if somebody was excluded from
14:46:16	16	trial?	14:49:03	16 the market because all the books they bought went up
14:46:16	17	MR. FRIEDMAN: Objection, form.	14:49:06	17 in price by 20 or 30 percent, then indeed they would
14:46:17	18	THE WITNESS: Since I don't know anything	14:49:10	18 have suffered loss, although they wouldn't
14:46:19	19	about how much anybody's received in settlement	14:49:13	19 necessarily have made any transactions.
14:46:23	20	payments, any consumer's received, I can't possibly	14:49:15	20 I'm not talking about do I know who those
14:46:26	21	account for that in the model. I don't know how much	14:49:18	21 customers are. I don't. But I'm saying damage is
14:46:28	22	anybody's received in settlements because I don't	14:49:22	22 not restricted to overcharges on e-books. Or I
14:46:31	23	know the details.	14:49:25	23 shouldn't say -- damage is restricted to that.
14:46:32	24	Q. MR. SWANSON: I ask you to turn to page 4 of	14:49:28	24 Anticompetitive injury is not restricted to damages.
14:46:42	25	your report. Now, you indicated in the paragraph	14:49:33	25 Q. Your model does not show that the price of
		215		217
14:46:57	1	under Assignment in the second sentence here, I	14:49:39	1 each e-book that a proposed class member purchased
14:47:03	2	think, that: "Attorneys for class plaintiffs also	14:49:41	2 from a publisher defendant was elevated by the
14:47:06	3	have asked me to determine whether anticompetitive	14:49:44	3 conspiracy.
14:47:09	4	harm arising from the conspiracy can be demonstrated	14:49:45	4 A. No.
14:47:12	5	for all class members."	14:49:46	5 Q. Now, you find that there were reductions in
14:47:14	6	Do you see that?	14:49:51	6 prices for a half percent of e-books. That's what
14:47:14	7	A. Yes.	14:49:55	7 you say, right?
14:47:16	8	Q. Does that really mean all, as in a hundred	14:49:57	8 A. Half, yeah. Half of a percent of the
14:47:21	9	percent?	14:49:59	9 transactions are accounted for by categories in which
14:47:22	10	A. It means for the group of class members you	14:50:02	10 the predicted price is above the actual price.
14:47:26	11	can demonstrate the injury that accrued to each one,	14:50:05	11 Q. And there were no damages associated with
14:47:31	12	each of them, yes. So you can -- you can talk about	14:50:08	12 those categories of purchases?
14:47:34	13	the class itself being affected on a classwide basis	14:50:11	13 MR. FRIEDMAN: Objection, form.
14:47:41	14	by anticompetitive harm.	14:50:12	14 THE WITNESS: Well, I calculated what the
14:47:42	15	Q. And for a class to be affected classwide by	14:50:14	15 negative amount was, and whether you want to call
14:47:47	16	anticompetitive harm, what percentage of members of	14:50:17	16 that negative damages or nothing is up to you.
14:47:49	17	that class must be individually injured?	14:50:20	17 Q. MR. SWANSON: You don't subtract those price
14:47:52	18	MR. FRIEDMAN: Objection, form, calls for	14:50:22	18 reductions from your damage calculations, correct?
14:47:54	19	legal conclusion.	14:50:24	19 A. No, but they're there. If you want to do the
14:47:55	20	THE WITNESS: I have no opinion on that.	14:50:32	20 subtraction, it's easy.
14:47:57	21	It's not -- not my task to characterize that issue.	14:50:33	21 Q. What, if anything, do you know about consumer
14:48:03	22	My task is to -- what's the mechanism for determining	14:50:35	22 e-book purchasing patterns?
14:48:06	23	whether class members were injured on a classwide	14:50:38	23 MR. FRIEDMAN: Object to form.
14:48:11	24	basis.	14:50:39	24 THE WITNESS: I haven't studied consumer
14:48:11	25	Q. MR. SWANSON: Is it your testimony that all	14:50:41	25 e-book purchasing patterns, so I have no opinion

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14:50:42	1	about that.	14:52:59	1 and have them calculate for each customer or for a
14:50:42	2	<b>Q. MR. SWANSON: Do you know whether an individual class member engaged in one e-book transaction or 20?</b>	14:53:03	2 given customer have them print out all e-books that
14:50:45	3		14:53:07	3 that customer has bought. That would be the way to
14:50:46	4		14:53:09	4 get that information.
14:50:46	5	A. Well, I can tell it from the transaction	14:53:10	5 <b>Q. Do you have any understanding as to the percentage of consumers who purchased only one e-book during the damage period?</b>
14:50:49	6	records, yes, but I have not examined the	14:53:12	6
14:50:51	7	distribution of e-books purchases across customers,	14:53:16	7
14:50:54	8	no. I've done no analysis of that.	14:53:18	8 A. I do not know how many. Obviously if I can't
14:50:56	9	<b>Q. And how from the transaction record can you tell if a class member purchased 20 as opposed to one e-book?</b>	14:53:22	9 identify whether two different transactions are two
14:50:58	10		14:53:27	10 different customers or the same customer, then I
14:51:02	11		14:53:29	11 obviously can't tell how many people bought exactly
14:51:02	12	A. You can follow that customer's transaction	14:53:33	12 one.
14:51:04	13	records through time for a given period. You can't	14:53:33	13 <b>Q. So you don't know if it's more or less than 50 percent?</b>
14:51:04	14	sum them across retailers because you don't know how	14:53:36	14 A. I do not know how many people bought
14:51:14	15	to match -- if somebody is buying from multiple	14:53:40	15 precisely one e-book in their history.
14:51:17	16	e-retailers, I don't know of a way to match across	14:53:44	17 <b>Q. Would it surprise you to learn that it could be 30 or 40 percent?</b>
14:51:21	17	them, but certainly it would be possible for Amazon	14:53:47	18 A. I have no expectations about what the number
14:51:23	18	to give you a printout of all the e-books that a	14:53:50	19 is. So in a certain sense, every number you might
14:51:28	19	given customer bought from Amazon, similarly Apple	14:53:53	20 throw at me would be a surprise because I don't know
14:51:31	20	and similarly Barnes & Noble.	14:53:59	21 what it is.
14:51:34	21	<b>Q. But do you have that now?</b>	14:54:00	23 <b>Q. Well, 101 percent would be a big surprise, I think.</b>
14:51:35	22	A. Well, I don't have it now in that form, but I	14:54:05	24 A. Not coming from you. Yes, I would expect it
14:51:43	23	could easily produce it, I believe, from the		
14:51:47	24	transactions data. Maybe I couldn't. Maybe I'd have		
14:51:54	25	to ask Amazon for it. I'm not absolutely certain,		
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14:51:57	1	but I thought we could probably do it from the	14:54:11	1 to be between zero and a hundred.
14:52:00	2	transactions records.	14:54:14	2 <b>Q. You've clearly been talking to Dale Jorgensen</b>
14:52:01	3	<b>Q. So your -- your understanding is that there</b>	14:54:20	3 <b>about my abilities.</b>
14:52:05	4	<b>are customer identifiers in the data that have been</b>	14:54:23	4 <b>Do you have any individual transactional</b>
14:52:07	5	<b>produced in this case?</b>	14:54:33	5 <b>e-book purchase data from the named -- either</b>
14:52:08	6	A. I'm not certain that that's true. I	14:54:37	6 <b>currently or former named class representatives?</b>
14:52:10	7	thought -- I think there might be, but I'm not	14:54:40	7 A. I personally do not have in my possession.
14:52:12	8	absolutely certain and I don't want to trust my	14:54:44	8 MR. FRIEDMAN: All right. Go ahead. That's
14:52:15	9	memory. So maybe, maybe not.	14:54:46	9 fine.
14:52:17	10	<b>Q. If there are no customer identifiers, then it</b>	14:54:46	10 THE WITNESS: I personally at this moment do
14:52:25	11	<b>would be the case that you wouldn't be able to tell</b>	14:54:49	11 not have in my possession any transactions records
14:52:27	12	<b>if an e-book consumer bought one or a hundred</b>	14:54:52	12 for any named plaintiff.
14:52:33	13	<b>e-books?</b>	14:54:53	13 <b>Q. MR. SWANSON: Were -- are you saying that</b>
14:52:34	14	MR. FRIEDMAN: Just for clarification, that	14:54:56	14 <b>none were made available to you?</b>
14:52:36	15	there is no customer identifiers that have been	14:54:57	15 MR. FRIEDMAN: I'm not going to allow him to
14:52:38	16	produced in the litigation, is that your question?	14:54:59	16 answer that. Next question.
14:52:40	17	MR. SWANSON: Right.	14:55:01	17 MR. SWANSON: Why?
14:52:41	18	MR. FRIEDMAN: As opposed to that exist in	14:55:02	18 MR. FRIEDMAN: I think that violates -- I
14:52:43	19	the world?	14:55:04	19 think it violates what information was communicated
14:52:43	20	MR. SWANSON: Yeah, absolutely.	14:55:10	20 to Dr. Noll from counsel.
14:52:45	21	<b>Q. Do you understand the distinction?</b>	14:55:12	21 MR. SWANSON: I think you're suggesting I'm
14:52:46	22	A. I understand the distinction. I know the	14:55:16	22 asking a question I'm not asking.
14:52:50	23	customer identifiers exist in the real world. It's	14:55:19	23 MR. FRIEDMAN: Then I don't understand your
14:52:52	24	conceivable that the only way you could get at this	14:55:20	24 question. You could ask him if he relied on it.
14:52:56	25	would be to give the regression equation to Amazon	14:55:25	25 He's already said he didn't have them available or he

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15:18:10	1	A. I was aware that reports on that issue had	15:21:14	1	<b>damages, would that lead you to be more concerned</b>	
15:18:15	2	been submitted, but I wouldn't have been able to give	15:21:19	2	<b>about your own methodology at all?</b>	
15:18:18	3	you his name had you asked me for it.	15:21:23	3	MR. FRIEDMAN: I'm going to object and I also	
15:18:20	4	<b>Q. Are you familiar with Professor Wickelgren's</b>	15:21:24	4	don't think, Dan, in fairness, that that's an	
15:18:26	5	<b>work as an economist?</b>	15:21:26	5	accurate representation and a fair one, given the	
15:18:27	6	A. No.	15:21:30	6	fact that the doctor has not looked at it and I don't	
15:18:27	7	<b>Q. Have you heard of him before in the academic</b>	15:21:35	7	think it's accurate.	
15:18:30	8	<b>context?</b>	15:21:36	8	So if you're representing that Dr. Wickelgren	
15:18:31	9	A. No.	15:21:39	9	was doing the exact same thing for the exact same	
15:18:32	10	<b>Q. I take it you have no insight as to whether</b>	15:21:43	10	purposes, which was the implication of question, I	
15:18:36	11	<b>he's an expert on anything?</b>	15:21:47	11	think that's misleading. And I don't think you	
15:18:44	12	A. I'm sure he's a fine fellow and kind to his	15:21:49	12	intended to, but I just don't think that's a fair	
15:18:49	13	mother. Okay? I don't know him. So I can't really	15:21:53	13	presentation to Roger. Excuse me. To Dr. Noll.	
15:18:55	14	say anything one way or the other about them.	15:21:56	14	THE WITNESS: I forgot the question.	
15:18:58	15	<b>Q. That means you haven't read any of his</b>	15:21:57	15	<b>MR. SWANSON: Well, my question is as an</b>	
15:19:01	16	<b>billion academic papers.</b>	15:21:59	16	<b>economist, if you learned that another economist had</b>	
15:19:04	17	A. Regardless. Not even his guffaws. I'm not	15:22:04	17	<b>looked at the same issue that you had and had come up</b>	
15:19:08	18	familiar with the name. That doesn't mean that if I	15:22:07	18	<b>with a conclusion that was 40 percent off of the</b>	
15:19:11	19	looked at his CV I wouldn't recognize something. It	15:22:14	19	<b>number that represented your own conclusion, would</b>	
15:19:13	20	just means that I don't know. What is there about I	15:22:17	20	<b>that give you any pause, leading you to reconsider</b>	
15:19:17	21	don't know --	15:22:20	21	<b>your own methodology?</b>	
15:19:18	22	<b>Q. You can only do that once. It loses its</b>	15:22:22	22	MR. FRIEDMAN: Objection, form.	
15:19:31	23	<b>force.</b>	15:22:24	23	THE WITNESS: Only if they had done exactly	
15:19:32	24	<b>So you have no knowledge as to whether or not</b>		15:22:25	24	the same thing in exactly the same context. I mean,
15:19:44	25	<b>Professor Wickelgren has developed a reliable basis</b>		15:22:29	25	how could they possibly have done the same thing a
		227			229	
15:19:47	1	<b>for estimating damages in this case.</b>		15:22:32	1	year before the opinion was offered? All right? I
15:19:51	2	A. No.		15:22:37	2	mean, I'm relying upon the outcome of the liability
15:19:51	3	<b>Q. And you're not the least bit curious about</b>		15:22:40	3	phase. He's not.
15:19:55	4	<b>what he's done?</b>		15:22:44	4	So he's in a -- he's in a state of much
15:19:56	5	MR. FRIEDMAN: Objection, form.		15:22:47	5	different information than I am. So it would be
15:19:57	6	THE WITNESS: Yeah, I don't know -- no, I'm		15:22:49	6	irrelevant what he did at that state of information.
15:20:08	7	not curious, no. Curious is the wrong word.		15:22:51	7	<b>Q. MR. SWANSON: As an academic economist, when</b>
15:20:16	8	MR. FRIEDMAN: I think you've answered the		15:22:57	8	<b>you work in a particular area and form opinions or</b>
15:20:18	9	question.		15:23:01	9	<b>theories, do you normally canvass the work of other</b>
15:20:19	10	THE WITNESS: I don't have any great desire		15:23:05	10	<b>economists in the area first?</b>
15:20:25	11	to study his work, no.		15:23:07	11	MR. FRIEDMAN: Objection, form.
15:20:26	12	<b>Q. MR. SWANSON: And if -- if I represent to you</b>		15:23:08	12	THE WITNESS: In peer reviewed journals, yes.
15:20:28	13	<b>that there is a 40 percent difference in the</b>		15:23:10	13	In expert reports in antitrust cases, no. I don't
15:20:33	14	<b>calculated damages, that doesn't stimulate you to</b>		15:23:14	14	read people's antitrust declarations to inform my
15:20:37	15	<b>look further into his work?</b>		15:23:17	15	research that I'm going to try to publish in an
15:20:39	16	MR. FRIEDMAN: Objection, form.		15:23:20	16	economics journal.
15:20:41	17	THE WITNESS: I mean, if someone asked me to		15:23:21	17	<b>Q. MR. SWANSON: If Dr. Wickelgren was an</b>
15:20:49	18	undertake a study of his report to figure out why he		15:23:30	18	<b>economist whose work you were familiar with, would</b>
15:20:53	19	got the number he did, I would do that. But I have		15:23:33	19	<b>that make you more likely to review the work on</b>
15:20:57	20	not been asked to do it and I don't have any great		15:23:36	20	<b>damages he's done in this case?</b>
15:21:00	21	desire to do it. But if somebody asked me to do it,		15:23:37	21	MR. FRIEDMAN: Objection, form.
15:21:04	22	I'd do it.		15:23:39	22	THE WITNESS: My lack of interest in what he
15:21:06	23	<b>Q. MR. SWANSON: If you were told that another</b>		15:23:42	23	has to do is not with respect to his name. It's with
15:21:08	24	<b>economist had studied the same issues that you had</b>		15:23:45	24	respect to the timing and circumstances, that what
15:21:11	25	<b>and had come up with a wildly different estimate of</b>		15:23:50	25	happened then before the record was developed in the

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15:23:53	1	liability phase of this case has no natural	15:26:57	1	THE WITNESS: I think it's also in the main
15:23:58	2	relationship to what I did.	15:26:59	2	body.
15:23:59	3	<b>Q. MR. SWANSON: Can you take a look at</b>	15:27:01	3	<b>Q. MR. SWANSON: Yeah, I think it's in both</b>
15:24:00	4	<b>Exhibit 7, what would be the second page. Do you</b>	15:27:03	4	<b>places, but if you can find it at the end, that's</b>
15:24:05	5	<b>note the date of Professor Wickelgren's declaration?</b>	15:27:06	5	<b>great.</b>
15:24:12	6	A. Well, the first one I noticed was August of	15:27:06	6	A. Subtotal for unidentified foreign is
15:24:14	7	2012. I don't know when this one is.	15:27:09	7	6.3 percent.
15:24:20	8	<b>Q. Just the second page. This would be --</b>	15:27:11	8	<b>Q. And what -- what dollar amount does that</b>
15:24:23	9	A. Okay. So this one in June. This is prior to	15:27:13	9	<b>correspond with?</b>
15:24:26	10	the issuance of the opinion.	15:27:14	10	A. 19.5 million.
15:24:27	11	<b>Q. So your -- your view is that Dr. Wickelgren's</b>	15:27:19	11	<b>Q. And you're looking at the second page of</b>
15:24:32	12	<b>work is necessarily irrelevant because it didn't rely</b>	15:27:25	12	<b>Exhibit 3 to your report which is Deposition</b>
15:24:38	13	<b>on the Court's opinion?</b>	15:27:29	13	<b>Exhibit 1, correct?</b>
15:24:40	14	MR. FRIEDMAN: Objection, form.	15:27:32	14	A. Correct.
15:24:41	15	THE WITNESS: No, I didn't say it was	15:27:33	15	<b>Q. And that 19.5 million is the figure on this</b>
15:24:43	16	irrelevant. I don't know for sure that it's	15:27:43	16	<b>Exhibit 3 to your report that is associated with</b>
15:24:45	17	irrelevant. You asked me if I had a burning desire	15:27:48	17	<b>subtotal for unidentified, right?</b>
15:24:49	18	to read his reports, and I don't. If there's	15:27:50	18	A. Yes.
15:24:54	19	something in them that is directly comparable to what	15:27:51	19	<b>Q. But those are identified as being not U.S.</b>
15:24:57	20	I did, then obviously I should read it, but I'm not	15:27:59	20	<b>purchasers?</b>
15:25:02	21	aware of that being true. I don't know that it's	15:28:00	21	A. Yes.
15:25:05	22	true, and so I can't answer questions about it; and	15:28:01	22	<b>Q. And excluded territories? What does that</b>
15:25:13	23	I'm not going to bill some client for reading	15:28:08	23	<b>refer to?</b>
15:25:16	24	something that's irrelevant if it isn't and so -- and	15:28:08	24	A. That refers to -- and they're listed in the
15:25:21	25	I would certainly not read it outside of the context	15:28:16	25	report -- I can't remember them by name, three
		231		233	
15:25:23	1	of litigation.	15:28:19	1	territories that are not listed in the state
15:25:24	2	So I just don't see a point here. But if it	15:28:21	2	complaint and not members of the class.
15:25:28	3	is -- if it is a valid damages model, I'm sure I'm	15:28:23	3	<b>Q. And then the subtotal for the plaintiff</b>
15:25:31	4	going to see it in your expert reports and then I'll	15:28:26	4	<b>states, that's a number of about 170.6 million; is</b>
15:25:35	5	have an opportunity to reply to it. The best expert	15:28:32	5	<b>that correct?</b>
15:25:40	6	reports for me to deal with are going to be the ones	15:28:32	6	A. Yes.
15:25:44	7	that you produce, not the ones that were produced for	15:28:32	7	<b>Q. And that corresponds to what?</b>
15:25:46	8	settlement in something else months ago.	15:28:34	8	A. That corresponds to the 55.4 percent of sales
15:25:50	9	<b>Q. MR. SWANSON: Let me -- you can put those to</b>	15:28:44	9	that are accounted for by those states, the damages
15:25:57	10	<b>one side. I ask you, you have a category of damage</b>	15:28:48	10	associated with those sales.
15:26:09	11	<b>quantification that includes consumers with foreign</b>	15:28:50	11	<b>Q. And the subtotal for class states, that's</b>
15:26:12	12	<b>addresses who are not members of the military.</b>	15:28:56	12	<b>116.7 million?</b>
15:26:15	13	A. Yes.	15:28:57	13	A. Yeah, that's the same -- this is the other
15:26:16	14	<b>Q. And can you tell me what percentage of your</b>	15:29:00	14	states that are not represented in the state
15:26:23	15	<b>overall damage calculation that those -- or that</b>	15:29:02	15	complaint. Class members live in those states.
15:26:28	16	<b>group represents?</b>	15:29:08	16	<b>Q. And in each instance, either the subtotal for</b>
15:26:29	17	A. It's in the report and I haven't memorized	15:29:11	17	<b>plaintiff states or the subtotal for class states,</b>
15:26:32	18	the number. My recollection is a few percent, but I	15:29:15	18	<b>that is your best opinion as to what the total damage</b>
15:26:35	19	don't remember the exact number.	15:29:18	19	<b>was to consumers in those respective categories?</b>
15:26:35	20	<b>Q. It's in your report. Could you just find it</b>	15:29:23	20	A. Yes, that's my estimate of damages in those
15:26:39	21	<b>for us? That would be Deposition Exhibit 1.</b>	15:29:25	21	categories of states.
15:26:50	22	A. I don't remember where it is.	15:29:26	22	<b>Q. Do you have any margin of error that attaches</b>
15:26:52	23	MR. HUBBARD: The very last.	15:29:29	23	<b>to your estimates of either of those numbers?</b>
15:26:53	24	THE WITNESS: Of the exhibits?	15:29:32	24	A. No, I do not.
15:26:56	25	MR. HUBBARD: Yes.	15:29:38	25	<b>Q. When in your report you were addressing the</b>

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15:29:56	1	subject of dead-weight loss, you made reference to	15:32:19	1	calculation is an overall estimate of the decline in	
15:30:01	2	Dr. Ashenfelter's finding that the average increase	15:32:23	2	sales arising from the price increase based on the	
15:30:04	3	in prices for the publisher defendants relative to	15:32:25	3	data in the opinion. It's nothing more and nothing	
15:30:07	4	Random House titles was 16.8 percent and the relative	15:32:29	4	less. So I don't know what beyond that you think it	
15:30:11	5	decline in unit sales was 14.5 percent.	15:32:31	5	might be that I was attempting here.	
15:30:14	6	Do you recall that?	15:32:34	6	Q. Let me ask you to turn back to Exhibit 4.	
15:30:14	7	A. Yes.	15:32:50	7	A. Back to the computer program.	
15:30:15	8	Q. And for purposes of that discussion, you	15:32:52	8	Q. Right. Can you confirm that this is the	
15:30:19	9	assumed that Random House provides a competitive	15:32:58	9	Stata code that runs your model?	
15:30:23	10	benchmark for prices of sales in e-books that were	15:33:00	10	A. Well, it's been represented to me as such.	
15:30:27	11	sold by the publisher defendants during the agency	15:33:03	11	I'm not the one who actually ran the model, so --	
15:30:30	12	period?	15:33:08	12	but, yes, I've been told that it is.	
15:30:30	13	A. Yes.	15:33:10	13	Q. Can you program in this software language?	
15:30:30	14	Q. Is that anything more than an assumption for	15:33:12	14	A. I could. I don't know that I could do it	
15:30:35	15	purposes of discussing dead-weight loss or --	15:33:14	15	today because I now rely upon my research assistants	
15:30:38	16	A. No, that discussion is premised on sort of	15:33:17	16	to do it.	
15:30:40	17	average values. It wouldn't apply to any particular	15:33:17	17	Q. When was the last time you coded in this	
15:30:46	18	publisher, any particular title or any particular	15:33:20	18	software language?	
15:30:50	19	thing. It's just an average across all of them.	15:33:21	19	A. A while. A long time ago. Several years.	
15:30:53	20	Q. You state in your report, and I think this is	15:33:24	20	Q. Let me ask you to turn to line 77. Do you	
15:31:02	21	at page 12, that:	15:33:42	21	see the merge command in there?	
15:31:03	22	"...the Court found that 'it is	15:33:43	22	A. Yeah.	
15:31:05	23	abundantly clear, and not surprising, that	15:33:44	23	Q. Your program is merging the data here,	
15:31:07	24	each of the Publisher Defendants lost sales	15:33:47	24	correct?	
15:31:10	25	of e-books due to the price increases."	15:33:47	25	A. That's right. Creating a larger data set	
			235			237
15:31:12	1	A. Where are you?	15:33:50	1	from smaller data sets.	
15:31:13	2	Q. I am at page 12.	15:33:51	2	Q. Can you identify what kind of data was merged	
15:31:28	3	MR. FRIEDMAN: Last sentence, page 12.	15:33:54	3	here?	
15:31:30	4	MR. SWANSON: Hmm?	15:33:54	4	A. No, I don't remember what all these mnemonics	
15:31:31	5	MR. FRIEDMAN: Last sentence page 12.	15:34:00	5	refer to. There was a time when I knew, but I don't	
15:31:33	6	MR. SWANSON: Thank you.	15:34:06	6	remember what the mnemonics mean now.	
15:31:33	7	MR. FRIEDMAN: You're welcome.	15:34:09	7	Q. Let me ask you to turn to line 181. Can you	
15:31:34	8	THE WITNESS: You're reading a quote from the	15:34:29	8	tell me what that does?	
15:31:36	9	opinion.	15:34:34	9	A. Well, this is simply stating all the	
15:31:36	10	Q. MR. SWANSON: Yes, where you're --	15:34:36	10	variables that are to be included in a regression;	
15:31:39	11	A. I'm quoting the opinion here and you read the	15:34:39	11	and if, again, you're going to ask me how the	
15:31:41	12	quote. I didn't recognize those as the way I would	15:34:49	12	mnemonics correspond to the actual variables, I don't	
15:31:43	13	write something. So that's why I asked for the	15:34:53	13	remember.	
15:31:46	14	citation because it sounded to me like I was quoting	15:34:53	14	Q. So you can't -- is it true you just don't --	
15:31:49	15	somebody else.	15:34:56	15	you don't know or you don't remember? I mean, in	
15:31:49	16	Q. Yeah, I appreciate that. Now, is it your	15:34:58	16	other words, did you -- were you involved in --	
15:31:52	17	understanding that the Court quantified the amount of	15:35:01	17	A. In naming the variables, no. I was involved	
15:31:55	18	sales of e-books that were lost by the publisher	15:35:04	18	in telling them what variables to include, and some	
15:31:58	19	defendants?	15:35:06	19	of them are obvious. Like under 90 days is a fairly	
15:31:58	20	A. No, the reason I didn't proceed to this	15:35:10	20	obvious mnemonic, but others are not obvious. Again,	
15:32:01	21	exercise is to use the data that the Court cited to	15:35:15	21	I'm not going to remember from memory what they all	
15:32:04	22	produce an illustrative calculation.	15:35:19	22	are.	
15:32:07	23	Q. And are you able to identify a particular	15:35:19	23	What my role was to describe in words the	
15:32:11	24	quantity of lost sales for purposes of your analysis?	15:35:23	24	variables to go in the regression and then to be	
15:32:16	25	A. I don't understand the question. The	15:35:25	25	certain that that's what the regression output	

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15:35:28	1	contained. It wasn't to write the code and to name the variables in the code.	15:39:13	1 wasn't the correct way to do it. So it's not
15:35:30	2		15:39:16	2 reported.
15:35:31	3	<b>Q. Can you tell me what calculation is being performed in line 1 and 2?</b>	15:39:16	3 <b>Q. Well, isn't line 192 but-for minus predicted?</b>
15:35:36	4		15:39:22	4 A. Yeah, but the but-for is a prediction. I
15:35:37	5	A. I think -- I'm not sure, but I think what they're doing here is calculating the difference in the predicted collusive price and the but-for collusive price.	15:39:27	5 mean the but-for price is the price that would
15:36:22	6		15:39:30	6 pertain in the absence of collusion, and so it has to
15:36:26	7		15:39:35	7 be estimated.
15:36:32	8		15:39:35	8 <b>Q. Yes. And I said is this not calculating the but-for price minus the predicted actual price.</b>
15:36:34	9	<b>Q. How uncertain are you?</b>	15:39:43	9 A. Predicted is the crucial word. It's not the
15:36:36	10	A. I don't know what -- I said I'm doing the best I can, but obviously I cannot remember what this particular line of code does. I don't remember -- I	15:39:47	11 actual price. It's the predicted price. I mean, I'm
15:36:39	11	don't even think I may have ever known what	15:39:51	12 not certain that that mnemonic refers to this because
15:36:42	12	particular line of code made which particular	15:39:56	13 I don't know what mnemonic was assigned to, A, the
15:36:47	13	calculation. So I've never examined this code on a	15:40:00	14 actual price or, B, the predicted actual price after
15:36:50	14	line-by-line basis to try to figure out what every	15:40:04	15 collusion. So I don't know what terminology was used
15:36:53	15	single line does.	15:40:07	16 in communicating with the computer to convey the
15:36:56	16		15:40:13	17 notion of calculating the damages.
15:36:59	17	<b>Q. This -- this is the implementation of your regression model, correct?</b>	15:40:15	18 So I just don't remember what -- and I -- I
15:37:00	18		15:40:19	19 did see such a list a long time ago, but I certainly
15:37:05	19	A. Yes.	15:40:23	20 didn't attempt to memorize it.
15:37:07	20		15:40:24	21 <b>Q. Is it possible that the coding implemented your methodology in a different way than you intended?</b>
15:37:08	21	<b>Q. And this is what a jury would have to endorse in order to calculate on your view individual damages for the members of the class and the consumers in the plaintiff states?</b>	15:40:27	22 A. It's perfectly conceivable, but -- I can
15:37:11	22		15:40:30	24 certainly ask them and find out if they screwed up
15:37:15	23		15:40:36	25
15:37:18	24	MR. FRIEDMAN: Objection, form.		
15:37:19	25			
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15:37:21	1	<b>THE WITNESS:</b> This code implements the regression model that I instructed the people working for me at Ashenfelter & Ashmore to undertake.	15:40:39	1 and didn't do what I told them to do. That's
15:37:24	2	Remembering the specific names -- what all the specific names refer to, I'm not going to be able to	15:40:42	2 certainly a possibility.
15:37:28	3	do that and I'm not going to attempt to. It's not	15:40:43	3 <b>Q. And who would be the person to ask that?</b>
15:37:35	4	that -- in my task.	15:40:47	4 <b>Would that be Mr. Ashmore?</b>
15:37:38	5	<b>Q. MR. SWANSON: So if I go through line 209 or any of the other hundred and 20 possible variables that are reflected in here --</b>	15:40:49	5 A. Well, would be three or four people, but he'd
15:37:40	6		15:40:52	6 be the one I asked first, yes.
15:37:45	7		15:40:54	7 <b>Q. And he was the one you relied upon to faithfully implement your methodology?</b>
15:37:47	8		15:40:56	8 A. Well, they're all being relied on. I mean,
15:37:50	9	<b>Q. MR. SWANSON: So if I go through line 209 or any of the other hundred and 20 possible variables that are reflected in here --</b>	15:41:01	9 10 that's not fair. Everybody's relied on, including
15:38:00	10		15:41:06	11 Orley Ashenfelter. He was involved with this as
15:38:05	11		15:41:10	12 well.
15:38:07	12	<b>Q. What is 209?</b>	15:41:10	13 <b>Q. Do you hold any opinions to which you intend to testify at trial that were not set forth in your declaration or discussed in this deposition?</b>
15:38:11	13	A. A lot of them are obvious. You're picking	15:41:19	14 A. I don't think so. You might try me, but I
15:38:15	14	things that are especially inobvious. All right?	15:41:26	15 think I've expressed all my opinions.
15:38:19	15	And so -- of course. You know, you hand me something	15:41:29	16 <b>Q. It has been your intent to disclose them all in your report and answer my questions obviously today.</b>
15:38:21	16	with a long list of variables in it, I'm not going to	15:41:31	17 A. Yes, I have attempted to answer -- to
15:38:22	17	remember everything in it by memory. I'd be foolish	15:41:35	18 disclose everything that I have done, all the
15:38:24	18	to even try.	15:41:39	19 opinions that I have.
15:38:46	19	<b>Q. Going back to line 192, you testified that you calculated actual minus predicted price, right?</b>	15:41:43	20 <b>Q. Do you have any plans to revise your declaration as you sit here today?</b>
15:38:47	20		15:41:46	21
15:38:53	21			
15:38:57	22	A. Yeah, that -- the actual minus predicted is		
15:39:03	23	what's in the report because I told you earlier there		
15:39:06	24	is this alternative way that this was an estimate of		
15:39:10	25	it. There was also an estimate of it made, but it		